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Contemporary Challenges Facing Small, Family Farms in America: The Grant Family and Their Maraschino Cherry Farm

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Class of 2020 DePauw University Honor Scholar Program

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INTRODUCTION

Where Did They Go?: Examining a Decline in the Small, Family Farmer

The most distinct characteristic of a farmer is not what you may think. It is not what they wear, those stereotypical blue jean overalls and straw hats; it is not the car they drive, or their obvious tanlines – that "farmer's tan."

It is their hands.

The rich, black soil permanently lodged beneath their fingernails, dyed into the grooves of their skin. No matter how many times they rinse their hands, the tinge of Earth plants itself further into open pores.

The farmer cultivates crops, nurtures them, and harvests them before they are distributed to feed millions of Americans every day, and prepares to repeat the process all over again. The sunburned lines across their arms and necks, crisping their ears and reddened faces is a sign of their dedication to the land – land they know better than anyone. It is land that has been passed down from generation to generation. The farmer holds the existence of humanity in their callused, soil stained hands.

My grandfather's hands were just like that, scarred and callused. Even after selling his and his brother's hog, cattle, corn, and soybean farms – a combined 1,000 acre operation – and officially retiring in 1984 after 35 years of farming, my grandfather's hands had kept their rough external armor despite age's wrinkles smoothing his touch. The dirt and dust had washed away until the remnants of farm work faded, save for scars and broken nails from years past.

As a child, I admittedly did not quite understand the concept of farming, beyond children's books and nursery rhymes like "Old McDonald;" yet, there was always something special about visiting my grandparents, Robert "Bob" and Evelyn Davidson, in their hometown of Goodland, Indiana. I grew up twenty minutes from downtown Indianapolis and garnered an early, but limited understanding of farming from our annual Indiana State Fair. Needless to say, I believed every farmer owned a giant, green John Deere tractor and wore baggy jeans with dirty brown cowboy boots; however, what I did understand was the serenity of farm country.



Figure A.1. My great-uncle Ben (left) and my grandfather Bob (right) on their farm, Goodland, IN. Photo courtesy Ann Allaben.

Every summer, my parents, my older sister, McKenzie, and I would hop into our 1997

Toyota Sienna and drive two hours until we reached Goodland. The last building that could no longer be seen in the rearview mirror was quickly replaced with Indiana farmland. While Indiana is known for its overwhelming ratio of farmland to urban cities and towns, perhaps to a fault as

that seems to be the *only* aspect of Indiana that tourists, popular television shows, and *Saturday Night Live* skits can identify, the beauty of such land is subsequently deemphasized.

Along the highway to Goodland, soybeans were jammed together so tightly it looked as though they were all linked together by a single root, one combined unit of plush, fat green leaves. Corn stalks sprouted in equidistant rows perfectly parallel with the next. I loved to look out of the back tinted windows of our van and watch as the stalks appeared to emulate "the wave" as we hauled past; it was like a row of falling dominos. Occasionally, there were cattle farmers, horse sightings, maybe even goats and chickens roaming here and there. The trek to Goodland was, and still is, miles and miles of flat land broken up only by yellow-rusted silos erected in the middle of what would always seem like a sea of vibrant green. The small feeling of Indianapolis that I had always felt quickly faded away as I gazed out at seemingly endless plains. Truthfully, I too used to hate the emptiness of the country. Perhaps appreciation came with age or merely greater exposure to the outdoors, but deep fuschia pink and orange sunsets beaming down in streaks through thick white clouds across an open field is a priceless view. No farm along all 98 miles of I-65 North, however, had richer soil than Goodland. It was, as its name suggested, good land.



Figure A.2. My grandfather (ground) and great-uncle Ben (sitting above) pose next to her John Deere tractor. Photo courtesy Ann Allaben.

Without fail, my grandparents would be standing on their front porch waving as we arrived. My grandmother would be wearing a bright colored shirt, most often blue, and white high-waisted pants. Under the Indiana summer sun, her white hair seemed to glow, practically dulling her pants in comparison. Next to her, my grandfather would stand slightly slouched over. He would have his green John Deere hat on, which never seemed to match the short sleeved tartan plaid-patterned button down shirt he chose to wear that day, fit snug around his belly. It was not until I was older that I understood the physical toll 35 years of farming had taken on my grandfather's body. The sun made it hard to tell if they were smiling or squinting but, regardless, their large, rounded glasses pressed against their wrinkled cheeks, pulling the ends of their lips up until their slightly crooked teeth peeked through.

My grandparents lived at the edge of their neighborhood next to fields of open land. It was a modest, single-story, red brick house with white siding that made the flower beds, that wrapped entirely around the parameter of the house, stand out. As the house on the end of the street, they were partially engulfed in the evening shadows of neighboring cornfields, yet the grass in their yard was exceptionally bright green. It was devoid of any noticeable flaws to the untrained eye; no weeds, no deadened, yellow patches. During our yearly visits, my grandfather would intentionally overgrow the lawn before our arrival so that McKenzie and I could sit on his lap, each of us propped on one knee, and ride around the yard cutting the grass on his John Deere riding lawn mower. It was his small introduction to us on the duties of farm life.

At night the house would go silent, save for the old cuckoo clock's pendulum ticking back and forth from the living room. Through the opened windows, McKenzie and I could hear the faint chirps of crickets. In the morning, we would wake to the aroma of fresh bacon crackling on the kitchen stovetop. My grandmother would be alone, humming an indiscernible tune to herself as she wandered between the bacon and blueberry pancakes; the blueberries, of course, were from Luedtke's Blueberry Farm in Wheatfield, Indiana, a family-owned and operated farm an hour north of Goodland. If we woke up in time, my grandmother would pull out a step stool and let us help. We would peer outside through the window above the sink at the dew clinging to the lush green grass. If it were a particularly humid morning, we would watch steam appear from the depths of the corn stalks, a wall of thick liquid dust dissolving into the blinding light. When the dew evaporated, it wasn't long until tractors would line the fields, their busy hum filling in the gaps of the empty air.

There was never a set agenda for the week. Some days, McKenzie and I would drive with our grandfather around town, helping him with miscellaneous errands. We would pull over off the side of the country road in his grey Oldsmobile 98 and pick sweet corn off the stalks.

"Is this our corn?" we would ask.

"Nope," he would respond deadpan. He would keep picking, and we would follow reluctantly.

"Are we going to get in trouble for taking these?" we would inquire further.

"Nope. The owner is a friend. He won't mind."

And that was the end of it. We would load up the car and he would drive us around downtown, letting us stop to get fudgesicles.

Goodland, like many other rural American towns, was a strong-willed community of family farmers. They were passionate, self-sacrificing, and fiercely loyal people. Whether it was a cup of sugar, a couple of ears of sweet corn off the side of the road, or reviving a broken-down tractor, they were there to support one another. They, like their crops, were deeply rooted in their land – for better or worse.

The Beginning of It All

After my grandfather passed away in 2008, I did not think often about farmers. Farming was not something my grandfather wanted to pass down to his children, unlike most family-operated farms. My aunts and uncles worked alongside him on their farms until they were relieved of their duties as each one attended college. The tradition had died out; my grandfather was the last farmer of our family. My aunts and uncles were steered away from farming as a profession. My mom told me that, "Dad always told us 'there are easier ways to make a living than with your back," encouraging them instead to study medicine, literature, business —

anything that would require less physical hardship and provide greater financial prosperity in their lives.

In spite of the common misconceptions, working as a farmer is a year-round occupation, one that has to battle dynamic markets and unbeatable forces of weather. In my grandfather's mind, the instability of farm life outweighed its benefits despite his own passion for the work. Ultimately, the farmer seemed removed from my life, a distant childhood memory. I had food on the table and that was enough to convince me, at the time, that the American agriculture industry was booming.

It was not until 2018 when I was visiting family in northwestern Michigan in Leelanau County that I was reintroduced to the American family farmer. My cousin's husband, Pete, took my mom, McKenzie, and me to the property of his friend, a local Michigan farmer, to pick saskatoon berries. After we picked berries, Pete convinced us to visit the farmer's larger cherry orchard on the west side of South Lake Leelanau. We headed up the steep, dirt path over uneven hills, passing the farmer himself along the way. Few words were exchanged before we continued on until we reached the summit, a breathtaking view that practically revealed all of South Lake Leelanau and beyond. The bright green leaves of the cherry trees spread across the uneven, rolling hills of the farm sharply contrasted with the deep blue of Lake Leelanau below. The lake's oblong-shaped outline was perfectly clear, treelines carving into the curves and edges of the water. On the clear, hot summer day we visited, it felt as though we could see all of Michigan. Boats were like ants, slowly cutting their white trail of waves into the blue. Had it not been preserved as farmland, the property would have been turned into multimillion-dollar mansions simply for the view.



Figure A.3. Me (left), my mom, Ann, and my older sister, McKenzie (right) at the top of one of the Grant's farms in July of 2018. South Lake Leelanau and the cherry trees are behind us. *Photo courtesy Peter Finch*.

As we drove away, Pete began telling me about the farmer, Steve Grant. Steve and his family had worked for four generations as cherry farmers in Michigan – a lineage scarcely present with family farms today. Steve's story motivated me to look back at my own family's farming history, but it was here that my reintroduction to family farming seemed strikingly brief. Article after article revealed a sharp decline in the presence of American family farms. They were, as I found out, practically endangered. I could not understand why. The grocery store shelves were always stocked, cars packed into local Kroger, Meijer and Walmart parking lots just as they were during my youth, sales on item after item; yet, the media and research were

telling me otherwise. Not too long into my investigative research did I discover the looming reality of modern-day family farmers: they were declining, going into debt and, eventually, out of business – and quickly.

Increasing prices of farm equipment, chemical fertilizers and pesticides. Stagnant, if not reduced, crop income. Climate change. Debts owed to insurance, chemical, and seed distribution companies. Uninterested consumers. An increasingly competitive global market. Government policies and either unaware or self-interested politicians focused on campaign contributions for their reelection. The list went on. It was such a stark contrast between the rhetoric used towards the importance of farming versus the reality of farming today. I was not the only one who felt this separation between the expectation and reality of American farming. In their 1995 book *Harvest for Hope: Family Farming/Farming Families*, authors and rural sociologists Lorraine Garkovich, Janet Bokemeier, and Barbara Foote compiled the narratives of farming families in Kentucky with the goal of communicating the reality of farmers and their lives through their voices. Garkovich et al. (1995) noted in their chapter entitled "Family Farming in Changing Times" how American society's definition and perspective of farming has varied throughout history. The farming family is first described as,

Working together and relying upon common sense, hard work, generations of know-how, and *each other* to build a home, a business, a future for their children....Their economic and subsistence needs are more than met because their hard work on the farm produces the food bought in the cities. This is the image of the farm family and agriculture... (Garkovich et al., 1995, p. 9).

Garkovich et al. (1995) described farming as an honorable profession, that not only fosters plant and animal growth but also community engagement. As I witnessed in Goodland during those summer visits, rural communities are neighborhoods of individuals who value the family farm and the contributions they make for the American people; their impact on social,

political, and economic development; and their homage to the land. The heroic image of the family farmer Garkovich et al. (1995) described is often the expectation individuals have of today's farmer, as it was the expectation I had as well. Other authors like former extension agricultural economist and professor at the University of Missouri-Columbia, Harold Breimyer, however, highlighted a view of farmers often held by politicians in his 1982 article for The Academy of Political Science, *The Decline of the Family Farm,* who described them as, "the unrefined, innocent, but noble farmer – everyone's pawn – is still projected in political circles. But belies the sagacity of farmers themselves and the adroitness of their representatives" (p. 186). The language toward farmers is critical – politicians deeming them "pawns" too "unrefined" and "innocent" to understand their manipulation by politics. Breimyer (1982) revealed that opinions held by politicians are often assumed by members of society which Garkovich et al. (1995) also concluded, describing a second, equally pervasive image of the farmer as.

A family that is bent from years of harsh, unending labor, aged before their time. With limited education and limited expectations, they scratch a living from the land. Their contributions to the national agricultural production are inconsequential, for they see their farm more as a way of life than as a business. They raise children who leave farming in search of better lives in the city. Vacant stores dot the main streets of their towns, towns left behind by economic progress and abandoned by their youths (p. 9).

The definition of a farmer, hardworking, dirt-stained hands, and sunburnt skin, had been lost to our society. Farming was becoming a profession to leave, not stay in. The truths of their dedication and grit remain, yet today they are lost in a field of misconceptions and run-down towns replaced with large industrial corporate farms.

This project was largely inspired by personal, family history. The farming community, a community that welcomed my grandparents and helped raise my mother and extended family, has virtually disappeared. Ghost towns are an effect that many rural communities have either

fallen victim to, or continue to suffer from as a result of a seemingly impossible slew of challenges their local farmers face.

I felt as though the modern family farmer was losing a fight they had no reason to lose. The loss of a family farm is like losing a loved one. It is land that has become their home, built on their blood, sweat, and tears. Stories of families losing not just their farmland, but also their homes, cars, health insurance, and retirement funds. They lose generations of family history, and in many cases, family members themselves. In 2018, the United States Centers for Disease Control and Prevention (CDC) reported that the suicide rate among male farmers, ranchers, and other occupational managers was 32.2 per 100,000 civilians in 2015; for males in the agricultural worker category, the suicide rate in 2015 was 17.3 (CDC, 2018). In 2017 the national suicide average of the entire American population was recorded at 14.0 per 100,000 people (Hedegaard et al., 2018). Holistic suicide rates for farmers and agricultural workers, however, could not be fully calculated as some cases of suicide may have been classified as farm-related accidents.

We are losing families who have, for a lack of better words, sold their souls to their land, who are quickly replaced by corporate industrial-sized farms, international markets, and harmful governmental policies. Thus, this project seeks to clarify the misconceptions associated with the family farmer today and strives to unpack contemporary challenges that are more nuanced and multifaceted than most Americans realize. Farmers' challenges are often discussed on the news, in our government, occasionally on social media; however, the farmer is no longer a recognizable figure. This project aims to humanize the farmer, share their stories that are often covered with labels, blame, and consequences they have little control over. The project will identify and explain the variety of evolving environmental, social, political, and economic challenges facing small, family farms in America as well as how they are impacting Americans

across the nation. It will ultimately investigate the decisions and actions small, family farms take to survive in a profession and industry that is increasingly corporatized and globalized. This project alone will, by no means, solve issues farmers face every day, nor can it possibly encompass every challenge at hand, yet I hope it will give a voice to those struggling to overcome them. By analyzing and exploring the complexities of modern-day farming, this thesis aims to build readers' awareness of the agricultural community in the United States. My further argument is that the shift in agricultural production, regulation, policy, and the industry itself will destroy the family farmer if steps towards innovation and progress are not made by the family farmer themselves, as well as if government officials fail to advocate for American products both globally and locally, and establish holistic policies that support family farmers and their communities.

Method

My project ultimately took me back to northwestern Michigan. My desire to make the project personal was essential – I wanted readers to not only visualize the modern family farmer but in actuality, be invited into their homes and into their lives. Thus, the project took shape as an ethnographic case study of Grant Farms, Steve and Becky Grant's cherry farm located in Lake Leelanau, Michigan. Grant Farms specializes in growing cherries destined for the maraschino cherry industry.

In planning for this project, it was suggested that I incorporate an anthropological approach in my research activities. In one sense this meant considering and approaching the topic with a holistic perspective to identify and analyze a variety of sociocultural variables and institutions impacting small family farmers. Ethnographic research has been central to the anthropologist's research toolkit since the earliest days of the discipline. By engaging directly

with culture bearers (e.g., Steve Grant) and stakeholders (e.g.Dr. Nikki Rothwell) through observation and interviews, I was able to see and hear about, first-hand, the complexities of maraschino cherry farming. Using the Grants Farm as an ethnographic case study to examine the larger phenomenon of small, family farms in America allowed me to explore a large and complex issue, while at the same time, locating my work in a specific place and time. The personal interactions I had with my consultants offered insight into not only 'what' as small family farmer is, but 'who' they are - what they think and are concerned about, what challenges do they face and why do they make to decisions that they do, what they believe and who they interact with. Integrating their words into this work personalizes the research in ways that are often lost in official reports. And while Steve Grant may be unique as a maraschino cherry farmer in Michigan, just as all farmers face their own unique and specific challenges, I will demonstrate that the Grants Farm is a useful example to understand not only the systemic challenges faced by all small family farmers, but also the impact that the small family farmer has on our economy, food supply, and rural community sustainability and preservation.

To capture this information, ethnographic interviews and observation methods were used. During the course of two weeks this January, I had the privilege to visit Grant Farms, interview Steve Grant, and explore the history of Michigan cherry farming. I conducted one-on-one interviews with Steve and other Michigan officials connected to the agriculture industry, all of which produced over twelve hours of interviews and over 200 pages of transcriptions. As is typical of a salt-of-the-earth American farming family, Steve and his wife, Becky, welcomed me into their home. At the heart of the project is Steve, his story, his family, and his farm. Steve's experiences as a farmer as well as the challenges his family farm operation faces will serve as a jumping-off point towards delving into comparable, if not the exact same issues that farmers

across the nation are facing. While the challenges are specific to Steve and the fruit farming industry, he tells a story that is, in many ways, relatable among farmers regardless of the crop they produce. The project is, therefore, as much about American farming in 2020 as it is about the Grants and their fourth generation farm.

Using anthropological and qualitative research methods such as gathering visual materials (photos, videos, and pamphlets), spending hours in local community libraries reading about Michigan and the cherry industry, and making observations of Steve, his family, his home and farming operation, as well as the Michigan community, agricultural research facilities, and landscape allowed me to better understand the Michigan farming community's behavior, beliefs, and ultimately, their everyday life. It was critical to travel and interview in person to fully understand my interview subjects, their stories, challenges, as well as collect information on Northern Michigan's farming history and current economic, political, and social status. Ethnographic research methods ultimately allowed me to accurately collect data on small, family farmers perspectives, while the inclusion of narrative – the Grant's story – has allowed me to guide the reader through the life of a farmer.

It is important to note, however, that all farming is not conducted or accomplished equally. The challenges one farmer faces in one part of the country can vastly differ from those of another farmer in a completely different climate. In other words, a grain farmer will not overlap in every challenge that a dairy farmer faces. Rather, the project tackles bigger, more universal challenges farmers across the nation and across industries experience – issues like competition in the global market; the cost of crop, health and property insurance; changes in policy; and ever present threat of climate change.

As I began my research, looking through various databases for current news regarding farming in America, I realized that the farming crisis was perhaps not something the average American citizen thought about on a daily basis. The conversation regarding sustainable farming and the future of our planet as a result of farming, has, however, been a hot topic of discussion within the American agricultural community. The more I researched the subject, the more I realized just how prevalent the debate about farming practices was on DePauw University's campus in Greencastle, Indiana, in my home life, and across the nation; yet, the well-being and state of the farmers themselves, amidst increasing agricultural concerns is often omitted. We tend to talk about the big picture – where will our food come from? How will we feed the world? – and focus less so on who is behind the American food production.

Curious about this question of the *who*, in November of 2019, I had the opportunity to present my thesis to a larger audience on DePauw's campus during the Honor Scholar poster presentation event. Students, faculty, and members of the Greencastle community were in attendance.



Contemporary Challenges Facing Small/Family Farms in America

Haley Allaben

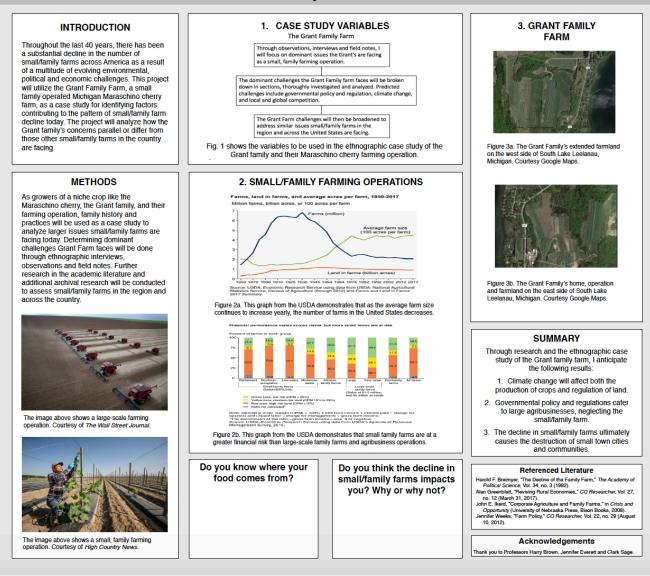


Figure A.4. My poster from the Honor Scholar presentation in November, 2019.

As individuals approached my poster, I handed them sticky notes and a pen, asking them to answer two questions. The first question was: "Do you know where your food comes from?"

"A lil [little] bit of it, but not much."

"No." (This answer dominated the responses tallying ten "nos").

"No, but I don't really care."

"I wish I did."

To my surprise, most of my participants were not aware of where the majority of their food came from – what company distributed the produce or on what farm it was grown. Some admitted it was not a great concern of theirs, while others stated they wished to know more about the food they were ingesting. It was apparent that most of them never regularly thought about nor were they really concerned about the origin of their food. I provided them with a follow-up question: "Do you think the decline in small/family farms impacts you? Why or why not?" This question elicited varied responses.

"Yes, because population growth makes it hard to feed everyone."

"Yes, my family has been put out of farming because of taxes and the size of large farming corporations."

"Yes – I'm from a small town with lots of ag [agriculture]."

"I think so. Farming is becoming an unattractive field."

"Yes, b/c [because] it becomes harder to track where food comes from and also big companies take over the industry."

Among other responses, the general reaction was mixed, yet most participants expressed a level of concern for a decline in the number of small, family farms. While students were typically more concerned with issues of food quality, price, and farming as a profitable and secure career, professors and members of the local community expressed more personal reasons for their concerns. Greencastle, Indiana is largely surrounded by farmland so it was not a surprise that many local residents spoke to me about their own family farming operations. Most, if not all, became solemn when we began discussing the state of family farms. They spoke about friends

and family losing crops to poor weather, falling into debt, and selling off the land they had owned for generations.

These responses, of course, are not reflective of all DePauw students, professors, or Greencastle residents. Many DePauw students are highly involved in agricultural research, sustainability, and farming whether through honors programs like Environmental Fellows, clubs and organizations like the Sustainability Leadership Program, or courses taught by professors who specialize in agricultural and environmental studies. Greencastle attracts individuals with varying backgrounds as well, some from farming communities, others from cities, of varying nationalities and socioeconomic statuses, just as is true for the American public as a whole.

Ultimately, this project is about learning. I set out to make *Contemporary Challenges*Facing Small, Family Farms in America informative about the realities of farmers' struggles but also digestible for readers perhaps unfamiliar with either farm life or farming challenges. Using an interdisciplinary approach, the chapters are structured between a balance of nonfiction narratives revolving around Grant Farms with economic, environmental, governmental, and sociological sources for further examination and analysis. The analytical research delves deeply into the systems working for and against small, family farmers, while the nonfiction narrative provides the personal voice of the family farmer.

Steve Grant and his family, as well as other consultants, kindly gave me permission to use their names and stories. Names of individuals I did not receive permission to use have been altered to protect their identity; this is indicated by a * next to their pseudonym, organization, or affiliation. Despite the use of creative nonfiction writing employed to create empathy, understanding, voice, perspective, and connection, the accuracy of each individual's story was not compromised. Interviewees welcomed me into their own homes, offices, and onto their

farms, supplying me with hours of information and, often, homemade meals and treats. While this project explores the life of a farmer, it by no means encompasses the experience of every small, family farmer in America; rather, the Grant's story merely offers a closer look into the lives – the successes, failures, and demands – of a family operated cherry farm as a means to extrapolate towards the challenges of small farmers across the nation.

CHAPTER ONE

The Family Behind the Farm: The Grants

That's our ultimate goal," Steve Grant said leaning back into his chair, crossing his arms, "is to pass it onto the next generation. And you have to come into that with all parties wanting that."

His eyes looked serious, taking a deep swallow and clearing his throat. The uncertainty burrowed in his brows quickly passed, though. Grant Farms had existed within Steve's family for almost four generations. At 49 years old, he is the current "Chief Officer" of the family cherry operation and has been since 2006. He was later joined by his cousin, John, as co-owner and operator in 2012. Steve takes great pride in his family legacy.

"If you're up to four generations, you are phenomenal," he laughed. "You did something right. 'Cause that don't just happen."

Steve and I sat at his dining room table, fittingly placed in the center of their open-concept home – family was, of course, at the heart of everything. Their Christmas tree was still standing, fully decorated, with the remnants of wrapping paper left below. Along their walls were family photos – the whole family in one, their six children posing alone in others. Just above their stairs was an iron cut sign that read "gather." Home was exactly that for the Grants: a place to gather and enjoy each other's company.

Like my grandfather had years ago, Steve wore a thick, winter red-and-black plaid flannel shirt tucked into wide-leg blue jeans. He walked around the house in thick socks. His

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¹ A self imposed title that has little to do with the status and everything to do with the responsibility of serving as the guide for the present and connection to the future of Grant Farms.

brown hair was buzzed – clean cut. Eyebrows, bushy. Under his blue eyes were small, darkened circles. Steve's hands were scraped, some nails broken, split, or bruised. In the dead of the January Michigan winter, the grooves of his hands were stained with soil. That's not to say that Steve was dirty, but rather that the fruit of his labor was deeply ingrained in his very being.

How Agriculture Came to Be

The Grant family continues a tradition that began roughly 12,000 years ago. The Agricultural Revolution changed how humans existed on earth – how we ate, communicated and advanced towards the modern-day world we know and live in today (Blakemore, 2019). What started as hunting and gathering, gradually transformed into the structured, methodical, and mechanized agricultural production we see today. Throughout the 18th and 19th centuries, colonial settlers from Europe utilized agriculture as their dominant source of economic prosperity, but more importantly, towards the sustainability of their nuclear family. Early farmers specialized in growing cash crops – wheat, corn, livestock, and various other plants.

What allowed these settlers to be prosperous, author and philosophy professor at Michigan State University, Paul Thompson, argued in his book *The Agrarian Vision:*Sustainability and Environmental Ethics, was the "specific agronomic practices [were] taken over from Native American peoples" (p. 43). It was Thomas Jefferson, Thompson (2010) argued, who advocated for the development of a stronger economy through agriculture. Jefferson described farmers as "the most valuable citizens", "the chosen people of god" in a 1785 letter to John Jay (Thompson, 2010, pp. 45-46). Ultimately, Jefferson triggered numerous political acts that changed the landscape and economy of early America with the Louisiana Purchase, an addition of over 500 million acres of territory from France, in 1803. Family farms soon grew into larger farming operations as settlers ventured west. This gradual westward movement was later

heavily influenced by the implementation of the 1862 Homestead Act signed into law by President Abraham Lincoln. The Act offered settlers 160 acres in exchange for a small filing fee and commitment to at least five years of farming before owning their allotted acreage (Library of Congress, 2018).

While farming had existed predominantly through the use of family members, field workers, and the systematic oppression of black people through slavery, especially in the south, American agriculture, once again, experienced a great transformation in the 20th century according to New York University Associate Professor of Food Studies and food studies and policies economist, Carolyn Dimitri; social science analyst, Anne Effland; and Director of the Market and Trade Economic Division of the USDA's Economic Research Service, Meilson Conklin. As they described in their 2005 USDA report *The 20th Century Transformation of U.S. Agriculture and Farm Policy*, "Early 20th century agriculture was labor intensive, and it took place on a large number of small, diversified farms in rural areas where more than half of the U.S. population lived" (p. 2). According to their research, Dimitri et al. (2005) reported that 41 percent of the nation's workforce was employed in agriculture in 1900. Out of over 76 million Americans in 1900, roughly 30 million were engaged in farm life. By 1970, however, only "4 percent of employed labor force worked in agriculture" out of more than 205 million citizens (Dimitri et al., 2005, p. 2).

The steady decline in the number of Americans working on farms was in large part due to previous historical events like the First World War and World War II. While World War I instigated the production of new technology, mostly related to weaponry, World War II directly impacted farming communities on multiple levels. Strong, brave, and loyal men were considered

the fittest for military service; however, this description of the ideal soldier also described farmers who, at the time, were predominantly male².

In her article for *Agricultural History* entitled "Get Your Farm in the Fight: Farm Masculinity in World War II," author and history professor and department chair at Ohio University, Katherine Jellison, described American farming during a period in which the country needed soldiers, sailors, and marines while also demanding agricultural producers – who would come from the same pool of strong, brave, and loyal men (p. 6). Farming communities were often hesitant, if not fully opposed, to losing their own farm labor and replacing them with inexperienced workers, typically women. With the responsibility of feeding not only the military but also their fellow American citizens at home, the United States began employing propaganda with the aim of convincing farmers to find their purpose in the war on the farm (Jellison, 2018, p. 7).

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² Males still account for the majority of farmers in the U.S. In 2017, out of over 3.3 million United States producers, 64 percent are male, 36 percent are female (USDA, National Agricultural Statistics Service [NASS], 2017, p. 2).



Figure 1.1. 1942 United States World War II poster entitled "Get Your Farm in the Fight! Use conservation methods for bigger yields now!" (Marshall Foundation, 1942)

My grandfather left his parents' farm, which had been purchased during the Great

Depression, in order to serve in the Army Air Corps as a B-24 Bombardier. Friends from

neighboring farms joined as well. While others, like women, filled the demand for farm workers,

World War I and II's demands for men, including young farmers, prompted further

advancements in technology beyond the battlefront. "From complete reliance on animal power in

1900, farmers rapidly embraced mechanical power" which in turn increased crop yields,

combined with the use of chemicals like fertilizers and pesticides (Dimitri et al. 2005, p. 6).

Farms, land in farms, and average acres per farm, 1850-2017 Million farms, billion acres, or 100 acres per farm

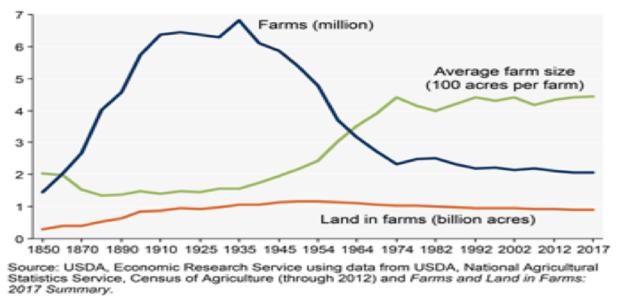


Figure 1.2. This graph from the USDA demonstrates that as the average farm size continues to increase yearly, the number of farms in the United States decreases. (USDA, 2018).

Yet, such a rapid change in the farming economy ultimately led to a decrease in the number of farms across rural America even as the size of farms increased, as depicted above in Figure 1.2. In less than a century, the United States Department of Agriculture (USDA) found that the presence of agricultural laborers had drastically declined, and along with it, farms themselves.

Despite mechanical and technological advancements, industrialization, and improvements in transportation among countless other developments that have changed farming since its original inception, the farmer's devotion to land and vocation has remained consistent. In another letter to George Washington in 1787, Thomas Jefferson again stated that agriculture was "our [America's] wisest pursuit, because it will in the end contribute most to wealth, good morals and happiness" (Library of Congress, 1847). Today, farmers are the essence of rural America where traditions of "self-reliance, resourcefulness, civic pride, family strength, concern

for neighbors and community, honesty, and friendliness" characterize their values (Garkovich et al. 1995, p. 9).

The Grants

Just as my family traveled from Scotland and Ireland to the United States to begin their farming operation in the late 19th century, as colonial settlers had before them, so too did Grant Farms begin like many farms in America. Steve's great grandfather, Frank, emigrated from Ireland seeking out land to start a farm. He had settled on a plot near Traverse City, Michigan but before long, the family bought the land where they currently reside along South Lake Leelanau in northwestern Michigan. When John Grant, Steve's grandfather, came of age to help with the farm, he expanded the operation and began farming as a cash cropper. He grew tomatoes, potatoes, strawberries, "anything the local markets needed, you know?" Steve told me. However, Steve's grandfather had also warned his children that there was no money in farming, just as my grandfather did years later.

With that, Steve's father, James (Jim), was the first in the Grant family to attend college at the University of Michigan. He studied civil engineering and eventually was so determined to leave farm life that he moved his growing family from Michigan to work for the State of California's Water Resources Department. Jim had wanted a stable life, one where money was easily attainable, as many other American farmers desired for their children at the time; yet, it wasn't long until he realized the perils of having *too* much money to carelessly spend.

"'It's so easy to make money, these kids [Californians] don't have no goal[s]," Steve reiterated to me, his voice rising slightly.

Around the time Jim was planning to move the family back to the midwest, his father invited the family up to the farm in Michigan. Though he was eager to see his family, Grandfather John had other intentions.

"Well, they came back early, and Grandpa, my Grandpa," Steve chuckled, "Somewhere around July. Well, he knew that's when harvest started back then."

Jim and his younger brother had joined their father on the farm that summer. Upon arrival, both brothers were amazed by what the operation had become, the beauty of the farm and the merit of their father's work.

Summer sunsets along Lake Leelanau are picturesque – faded yellow skies that blend into the blood orange hue that gleams around the sun. Cotton candy clouds break up the yellow-orange hues from the setting evening blue and cast shadows down on the green hills below. The water across the lake is no longer blue unless seen close up; it, instead, glistens almost blindingly white. Among the cherry trees atop the Grant's farmland, almost all of South Lake Leelanau can be seen. It is both literally and figuratively a multi-million dollar view.

Steve's grandfather was getting older and secretly desired one of his children to take over the operation, despite his previous woes against the profession. Jim had not yet found a replacement job in the midwest unlike his brother, who had limited time at home before returning to work. However, Jim's brother refused to let Jim leave.

"His brother said, 'if you don't do this [take over the farm], it's going to be gone," Steve said, his eyes filling with tears. "So he stayed."



Figure 1.3 The Grant Family. Steve's father, Jim, is on the far left. (CherryMan, n.d.).

Jim, alongside his other brother and Steve's uncle, Joe, transformed Grant Farms into what it is today after their dad, John (Steve's grandfather), sold them the land in 1972.

We paused the conversation as Steve took deep breaths, wiping his eyes with tissues Becky had brought over to the table. Just two years ago, Steve's father passed away. For roughly ten years, Jim was unable to get enough oxygen in his lungs because his heart did not pump as well as it should, causing fluid to build up. Doctors had speculated that he was allergic to pesticides; however, after testing Jim for every chemical the Grant's used on their farm, there were no signs of an allergic reaction to any of them. It was not until a week before his death that Jim was admitted to the hospital following a heart attack. He had not told anyone that a year prior he was supposed to have heart surgery; like most farmers, Jim was stubborn, hated hospitals, and feared his time with family would be cut shorter had he agreed to the surgery. Jim Grant, however, lived a full life. His family captured his very essence, as a brother, father, grandfather, and farmer, in his obituary:

Jim had a passion for farming and planting seeds in soil and hearts. His ability to nurture the best out of everything living, especially his children and grandchildren, was among his greatest accomplishments. He pioneered many advances in the farming industry. His home was adorned by many gardens and swings sets filled with beautiful roses and children (Record-Eagle, 2018).

The "home farm", which is what the Grants call their farmland located on the same property as their house, rests beyond the passersby's wandering eye. In fact, the whole house seems almost hidden. If you weren't paying attention, you could miss the Grant's home completely. Shielded by tall, thick trees, the house only peeks out just before another curve in the road.

Getting to Steve's home was a challenge in and of itself. Though I have driven in snow, ice, and slush too many times to count in my hometown of Indianapolis, winter in Indiana is not the same as that in Michigan. Huge snow plows and salt trucks race down roads too narrow for sharing, pushing snow well beyond the pavement in preparation for *future* snowfall. As a defensive driver, I gripped my steering wheel and went the speed limit depending on the clarity of streets, yet native Michigan drivers – regardless of road conditions and weather – sped through, or in many cases, went around me.

It's hard to tell during the winter – even harder in the summer – that behind the Grant's house, barn, garages, and equipment is around 60 acres of farmland. Their farming operation is so nestled behind the rolling Michigan hills that Steve says fellow farmers sometimes don't even realize they farm at all.

""We know the Grants," Steve mimicked. "They make equipment.' That's all they know about us!"

Out of the seven farm properties the Grants own, the home farm is one of their largest, besides the acquired VerSnyder farm, which lies nearly opposite, but slightly northwest of their

home on the west side of the lake, pictured in Figure 1.5. The VerSynder property is roughly 100 acres, though Steve admitted he could not remember how Grandpa John split the farms up. In total, 250 acres of cherry trees, intermixed with a low percentage of miscellaneous crops like saskatoon berries and Christmas trees, are owned and operated by Grant Farms today. And that means *every* Grant helps operate the farm, though not without incentive, of course. Steve has found his own ways of perhaps tricking the kids into running the farm, just as his grandfather did years ago.

"They're just doing everything," Steve says. "That would be our kids. The primary reason is we can't pay as much [for hired, seasonal labor]. [If] you worked all before school, you get a bonus, basically," Steve laughed.



Figure 1.4. Steve (far back leaning against his cherry shaker) oversees his children helping him harvest their cherries. *Photo courtesy of the Grants*.

The Grant family believes that no one can work their land better than their own family. Steve mentioned that even the youngest of the family at five years old has responsibilities picking weeds and moving small rocks out of the way, though Becky mentioned it is usually not long until he and his slightly older sister run off to play. Steve, however, makes sure that his oldest children never feel forced to work the farm as he and his siblings did during their childhood.

"Dad [Jim] was a big guy. He loved kids. So he realized earlier on that you want kids to work, you give them treats. They'll work all day if they can get a treat," Steve and Becky confirmed as they laughed, nodding their heads in agreement.

Becky continues the long Grant tradition of baking sticky buns – gooey, cinnamon-y dough treats, and driving them out to the farm every day during harvest for the children to snack on. While the sticky buns usually get the kids in a good mood, there are days when the desire to goof around during their summer vacation trumps work.

"Why do we gotta go work?" Steve imitates his children. "Because I need you!" he laughs. "Pure and simple. If I don't have you do this, who's going to do it? You gotta do it, nobody else can do it, you know."

Despite their duties to the farm, some of the Grant family rules and regulations have changed since Steve and his siblings worked with their father. As after school recreational clubs often conflicted with harvest and farm work, Steve's father would not let any of his children participate in sports. Steve has been more lenient. The only sport the Grant kids are not allowed to play? Baseball is a spring sport, yet championships and summer leagues would conflict with harvesting season for the Grants in early June.

"No baseball, no baseball," Steve said, waving his hand across the table. "I give 'em basketball, come on." Becky shakes her head, eying him. "I let 'em do track, you gotta give me credit," Steve says to Becky, who does not protest. She nods her head, smiling back at Steve.





Figure 1.5. View from Grant Farms located on the west side of South Lake Leelanau, Michigan (acquired VerSnyder Farm). The top photo (summer) shows the Grants' plowed field in preparation for planting new trees. *Photo courtesy of the Grant*. I took the bottom photo (winter) during my visit in January 2020. You can see the newly planted trees sprouting above the snow.

Steve allows the children to also run their own operations in addition to fulfilling their duties on the cherry farm. His oldest daughter, Hannah, grows sweet corn to pay for her college tuition; Jessica makes jewelry and runs a successful saskatoon berry operation that supplies Northern Latitudes Distillery. While the Grant's cherries are also bought by the distillery, Jessica, alone, made roughly \$2,000 on her saskatoons. The Grants allow their children the opportunity to grow their own product, instilling in them lessons of independence and

responsibility. At the end of the day, though, cherries are their main crop, one that brings the whole family together.

It was not until the 1960s, however, that Grandpa John actually started planting the cherry trees they now grow. Though cherries had existed in Michigan since tart cherries were planted in 1893, they were not a popular commodity across the United States to sustain a single crop, cherry orchard (National Cherry Festival, n.d.). Throughout the 19th century, Michigan was well known for their lumber businesses; yet, once land was cleared of trees, early farmers were able to plant cherry trees and take advantage of the ideal climate of northwest Michigan. By the 1900s, tarts – specifically the Montmorency tart cherry – had taken off, expanding from Traverse City to land along the lakes. Grandpa John decided to start small, planting five acres of tart cherries.

Recognizing the success of their father's cherry and fruit crops, Jim and Steve's uncle, Joe, took ownership of the operation. The family soon decided to focus solely on cherries as their strawberry operations were not conducive to improved efficiencies via equipment and required the hiring and management of migrant laborers, a cost they couldn't afford. Unlike other producers in Michigan, Jim and Joe were producing stem-on tart cherries. It is exactly as it sounds – simply cherries with the stem still intact, which garnered a higher price in the market. In true Grant family fashion, however, the brothers were always looking for new opportunities to diversify their crops, and they found one with Jim Reynolds.

Around the 1980s, Jim Reynolds was the operator of Gray & Company, the United States' cherry and fruit ingredient leaders helping growers and buyers sell their products with assistance in packaging and labeling, marketing, and more (Gray & Company, n.d.). Reynolds

acquired the fruit company in 1981 and sought out Michigan growers interested in growing a niche, yet increasingly popular cherry market: the maraschino cherry.

The Maraschino Cherry

It's the cherry on top – literally.

That glossy, bright ruby red cherry resting neatly on a whopping heap of whipped cream above ice cream sundaes, its syrupy dye bleeding into fresh baked fruitcake, floating at the bottom of that Shirley Temple, harpooned on the end of a wooden toothpick in an Amaretto Sour – that is the maraschino cherry.

I had my first Maraschino cherry when I was around six or seven years-old. I don't quite remember my age but what lingers on my taste buds is the thick, sweetened liquid of the maraschino cherry.

As a kid, there was only one thing I wanted most in the world, other than a McDonald's kid's meal toy. Coming from a family that regulated the amount of junk food and sugar intake my older sister, McKenzie, and I were permitted, we would spend days, weeks, *months* begging and pleading for a Steak n' Shake milkshake. They were advertised practically everywhere. In cheap, thin waxy newspapers shoved unevenly in our mailbox; billboards distorting the size of the old-fashioned glasses that were filled to the brim with creamy chocolate ice cream and fluffy whipped cream, topped with that luminescent, red cherry; commercials boasting half-price happy hour. My seven-year-old mind was easily manipulated.

It was an especially hot day when we finally convinced my mom to take us to get our very own milkshakes. We hopped into our old 1997 Toyota Sienna, a van that had an espresso brown tint and at that point, a large dent in the back bumper that had begun to rip the paint job,

and sat in the lukewarm, carpet covered seats. My mom had the windows rolled all the way down but to no avail.

"Can we please turn on the AC?" McKenzie whined from the front seat.

I chimed in from the back. "Please, mom," I probably droned.

"We'll be home in less than two minutes. Can you really not handle that?" my mom retorted.

We groaned and slouched back into the soft seats, our shirts stuck to the backs of our damp skin. Looking down in defeat, I stared into the pile of coupons my mom kept stacked in her van between the driver and passenger seats. Amid the pool of coupons offering deals on miscellaneous items that no one ever really found useful, I saw the jackpot: Steak n' Shake coupons for half-price happy hour which began at four pm. We still had forty minutes to get there. We could make it.

"Mom," I half sobbed from the back of the van, "can we go to Steak n' Shake? Oh, pleaseee! You have coupons. They're right there!" I pointed, my mother's eyes fixed on the road ahead of her. "I *promise* I'll *never* ask you again. It's happy hour, too. Please mom!" I yelled from the back, strapped to my booster seat though in the moment it felt more like a heated straitjacket restricting me from fully expressing myself in this fit of passion for ice cream.

Perhaps she was in a good mood that day or perhaps she had secretly craved something sweet, cold and half-priced – something that would keep her children at bay for the rest of the night – but the next thing I knew as I craned my neck to peer over the sides of the van door was that we were in the drive thru waiting for a Steak n' Shake milkshake.

Pressed to the ceiling of the plastic lid of my Butterfinger ice cream filled styrofoam cup was the bloody, red dye of the maraschino cherry. I followed the glossy trail as it sunk down into

the depths of my whipped cream. Picking it out with my clear straw, I examined it closely - an invader in my shake. Curiously, I stuck it in my mouth and chewed. *Pop.* The flawless, round outside of the cherry burst open and blasted an overload of sweetness in my mouth. Goopy, candied liquid squirted in between my teeth, on my tongue, in the crevasses of my gums and cheeks. It was mushy and seemed to dissolve the more I chewed. My face contorted as I swallowed it down and quickly grabbed my straw to swish my mouth clean with ice cream. Needless to say, from then on, the maraschino cherry was picked out carefully and set aside; nothing more than a stain on my pure, white whipped cream.

Though the maraschino cherry did not win me over as a child, its history in popular American sweet treats has remained consistent. Weaving its way through the dessert and cocktail industries, the luxurious candied fruit has become infamous since its introduction to the United States in the early 1900s; yet, the maraschino cherry's path to fame was not as simple as its placement atop chilled beverages. In fact, the maraschino cherry concoction American's know and love today is not the original recipe – far from it to be exact.

The maraschino cherry dates back to 1821 when Girolamo Luxardo, a Genovese businessman, relocated his family to Zara – modern day Zadar, Croatia – to serve as the consular representative of the Kingdom of Sardinia (Luxardo, 2020). Instead, he established a Rosolio Maraschino distillery. While Luxardo is credited as the creator of the prestigious, original maraschino cherry, and represents the seventh generation family-run company's brand name, it was Luxardo's wife, Maria Canevari, who perfected the Rosolio Maraschino recipe.

Maraschino was and remains a popular liqueur that has been produced in Dalmatia,
Croatia since medieval times through a process of distilling sour marasca cherry skins, pits,
stems, and leaves. Canevari's blend was so esteemed that she gained attention from experts in

the field; she had mastered balancing the sour marasca cherry with the nutty undertones sourced from the cherry's pit. The Luxardo liqueur quickly became a success.

After almost a century of selling maraschino liqueur, the company expanded, and in 1905, Luxardo began selling a new, tantalizing, buzzed treat: the original maraschino cherry. Bathed in thick, black-crimson marasca cherry syrup and sugar, infused with the Cherry Liqueur "Sangue Morlacco" (Luxardo, 2020), the maraschino cherry became the most famous garnish used by mixologists globally, just as Luxardo Maraschino had become an instant classic for drinkers.





Figure 1.6. A bottle of Luxardo's Original Maraschino Cherries (left); (Luxardo, n.d.). The image to the right shows the deep purple of the original cherries; (Epicurious, 2018).

Luxardo cherry's presence in the European market eventually grabbed the attention of wealthy Americans eager to taste the sweetened, high-quality cocktail cherry in the early 20th century. The Maraschino cherry was delectable and rare, as Luxardo's small family cherry operation could not keep up with the demand across the world. Only in the finest bars and restaurants could American consumers savor the sweet, creamy cherry in their Manhattans.

Though the expensive cost of the maraschino cherry perhaps could have deterred many Americans at the time from indulging in the sweetened fruit, the exclusivity instead prompted cherry producers to experiment with the processing and preservation methods. Producers avoided alcohol, enhanced the color, sweetness, and syrupy nature of the cherry and branded it a maraschino cherry, one for *all* customers; however, the popularity in the cherry garnish and, simultaneously, concern for its new-found methods of production and preservation caught the attention of the United States federal government.

Having passed the Food and Drugs Act of 1906 thanks to American journalist and novelist Upton Sinclair's novel, *The Jungle*, one of the most provocative books of the century that exposed the shocking reality of America's Meat-Packing Industry (FDA, 2018), the United States government became highly critical of food safety. "Prior to 1906," wrote assistant professor of political science at Virginia Tech, Courtney I.P. Thomas, in her book *In Food we Trust: The Politics of Purity in American Food Regulation*, "there were no national food safety regulations in the United States. Instead, there was a hodgepodge of state and local laws and ordinances that were based more on the quality of food than on its safety" (p. 17). At the time, food alteration was relatively unheard of by the majority of Americans. Within the Act, government officials hired chemists and food officials to establish food standards that aligned

with the ultimate goal of protecting local agricultural commodities from "deceptive imitations" (FDA, 2018).

And deceptive they were. Imitation or not, Americans were addicted to the maraschino cherry until the public was informed of the liberties taken by producers with chemical alterations. Stories of cherries fumed in sulfur, stored in noxious chemical brines, and injected with colorant byproducts, red dye filled with aniline, an organic compound that typically damages hemoglobin if ingested or inhaled (CDC, 1980), leaked and wreaked havoc on the fruit.

Under the orders of the 1906 Food and Drugs Act, and in response to the public outcry, the USDA inspected the production of maraschino cherries in 1912. The investigation targeted producers who violated the law, which stated any food that was "an imitation of or offered for sale under the distinctive name of another article but considered such food legal if tagged so as to plainly indicate that they are compounds, imitations, or blends" was outlawed (FDA, 2018). Thus, the "maraschino" name was reserved for companies that utilized marasca cherries preserved specifically in maraschino liqueur. For companies and producers who used Royal Ann cherries, which were more commonly grown in the United States, artificially colored and flavored cherries were from then on required to label their cans as "Imitation Maraschino Cherries" or, simply, make no reference to the name "maraschino."

While the adjustment in regulation supported small, often family-operated farms from being mistaken for lower quality, artificially altered cherry products, the public discovery of imitation cherries and cherry productions did little, if anything, to stop American consumers from devouring the candied cherries. If it was not enough for small, organic companies to risk reputation and cost against cheaper, low-grade cocktail cherries, "maraschino" had become synonymous with the neon red-dyed artificial cherries; it had lost its trademark. The maraschino

had become so popular and common that it no longer bore the cultural capital it once had. In 1940, the Food and Drug Administration "reached the conclusion that "Maraschino Cherries" is the common or usual name of cherries" (FDA, 1980).

Today, if you wander down aisles in your local grocery stores, you will find countless maraschino cherry brands lined along the shelves. While some will advertise their organically grown, non-preservative, coloring and artificial flavoring-free cherries, others hide under the printed label of "cocktail cherries" and fine, blurred print of a declaration that "these cherries are artificially colored red and flavored, preserved with [insert chemicals here]." If the labels fool you, the price differential between The Original Maraschino Cherry and processed maraschino cherries most certainly will not. A single 400-gram jar of Luxardo Original Maraschino Cherries costs roughly \$40 at your local Walmart, compared to the average, Great Value or Food Club brand maraschino cherries for around \$5.

But what *really* sets The Original Luxardo Maraschino Cherries apart from the average, American sugar stewed maraschino cherries?



Figure 1.7. Artificially flavored maraschino cherries. (S&C Design Studios, 2019)

Once picked from the trees, cherries are taken to processing plants or fresh packing facilities. As Steve described to me, his cherries still have their stem on, emulating the artistic, more picturesque, version of the maraschino cherry that is not only more popular but also pays more per pound. Upon shaking them off the trees, Steve's cherries go straight into a bin of water where they soak until transported to their processing plant. Last year, the Grants' stem-on cherries sold for \$1.10 a pound, though Steve told me they typically receive \$0.49 per pound.

For many years prior to recent processing methods, maraschino cherries were brined in liquor, or, like the Luxardo family cherries, were shipped in liquor; however, come January 16, 1920, such boozed cherries were banned – the beginning of Prohibition. Yet, it was not Prohibition that deterred cherry growers from producing their maraschino cherries, but rather an issue of preservation. Cherries were spoiling quickly and turning mushy after only weeks of preservation (Verzemnieks, 2018). For many who wanted to remain competitive with European producers, forming a new preservation concoction was vital.

Cherry growers turned to the newly hired Oregon State University professor, Ernest H. Wiegand, for a solution to improve the preservation and quality of maraschino cherries. Wiegand had begun his first year as a professor of horticulture in 1919, but soon dedicated much of his time researching how to brine and preserve Oregon cherry grower's cherries without causing them to rot. In 1925, Wiegand found his solution (Verzemnieks, 2018).



Figure 1.8. Ernest H. Wiegand, 1938. (Oreg. State University Archives, 1938).

Rather than soak the cherries in liquor, Wiegand brined the fruit with calcium salts – the process that removes the cherries of their distinct red color and flavor. He then poached them in sugar syrup, injected them with red dye and sealed them shut in a glass jar. His work was so pivotal that in 1960, Wiegand was awarded the Nicholas Appert Award for "preeminence in and contributions to the field of food technology" (Institute of Food Technologists, 2019, Nicholas

Appert Award, purpose section, para. 1). Oregon State University later changed the name of the Food Technology Building to Wiegand Hall. He is considered the father and founder of the modern-day maraschino cherry – to Americans, that is.

Wiegand's brine method is still used today, though transforming the average briner cherry into the maraschino cherry we know is not a process for the faint-hearted or picky eaters. Steve even mentioned that Becky hated watching their own cherries go through the process. She dislikes the sugary taste. Tart, sweet, and black cherries are typically dumped into large square baths of water, rinsed and cleaned, and then packaged for consumption; however, the cherries for maraschino production take a slight detour. When they arrive at the processing facilities, they are immediately transferred into a tub filled with a curing brine solution.

The brine solution used on Steve's cherries through his producer, Gray & Company — now owned by Seneca Foods — is made with natural color and flavoring, no preservatives, and no high fructose corn syrup. Every year since their partnership with Gray & Company and their dedication to the maraschino cherry market, the Grants go down to the processing plant and watch their cherries be processed, ensuring that their product is properly handled. Steve noted that Gray & Company no longer uses the red dye originally created by Wiegand, instead opting for natural red ingredients like beet juice. He doesn't deny the progress the company has made.

"If you took a tour of their plant ten years ago, in as little as ten years ago, you'd been like 'oh, I'm not eating one of these. I ain't even – the smell, the sulfur smell," he said, squinting and contorting his face in disgust at the memory, "but they got rid of all that."

Each facility may differ in the number of days they let the cherries bathe in the brine mixture, some fruit producers soak their cherries for as long as 45 days, others as short as 12 hours. The brining, however, is not what gives the cherries their syrup texture and sweet taste;

rather, the brine does the opposite. Brining strips the cherry of all its natural coloring and flavor, essentially allowing processors to begin with a blank slate (perhaps literally as the red, sometimes yellow-red cherries transform into white, lifeless shadows of their former colors).

The brining process is essential, however unnatural it appears, as it maintains the shape and texture of the cherry. They are sorted, pitted, and thrown once again into a large vat where the cherries will receive their most defining characteristics: flavor and taste. For a month they sit in tanks. Plumped and glossed, the maraschino cherries are finally canned with the processor's special syrup recipe, awaiting their seat along the rows of shelves in countless markets and grocery stores across the nation.

Adapting throughout time, the maraschino cherry industry has prevailed, as has the Grant family's farm.

"If you really want to think about it [farming], it comes back down to – whatever – your faith, morals, your compass. You've gotta have that," Steve told me.

While he acknowledges that the cherries he produces often gain a lot of criticism from consumers, fellow farms, and even relatives for its disputed past and questionable taste, Steve is proud of the product he produces and his ability to provide for his family. In the state of Michigan, Grant Farms is the largest producer of stem-on cherries³. Despite Grant Farm's success throughout four generations, Steve admits that modern society has presented new obstacles that have challenged the Grant's ability to adapt.

³ Steve did not disclose what variety of sweet cherry he uses. He refers to his cherries as "stem-ons" or "briners."

[&]quot;Briners" simply indicates that they are cherries that undergo the brining process. Cherries are generally categorized as sweet or tart. Within each category are different varieties of cherries. For example, sweet cherries include Royal

"We've been in it the longest," Steve said. "We don't know everything. We don't like to act like we know everything because every year is something different. And you always got to change," he continued. "It's hard being in a tourist economy. It gets harder – or a retirement community, you know. We get – three, four times a year – letters from realtors."

The letters from realtors have been overloading the mailboxes of many cherry producers in Michigan as of late due to changes in the economy and market. Steve and Becky mentioned how grateful they were to be one of the few maraschino producers in Michigan. Unlike the Grants, the majority of Michigan cherry farms are dedicated to Montmorency tart cherries, known as "America's Superfruit" (Michigan Department of Agriculture & Rural Development, 2020, Cherries section, para. 2). This year, tart cherries paid a measly \$0.08 per pound. Steve looked disheartened, the bags under his eyes seeming to appear heavier than they had.

"Is it insulting, yes, it's insulting," Steve said. "But, you know, we're in free markets.

What do you expect? I would hate to be a guy that was, like, ninety-five percent tarts."

The cherry industry, particularly tart cherries, is facing recent challenges in the global market, so much so that Michigan tart cherry producers, fellow family farmers, and friends of the Grants could be out of business by next harvest.

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Anns, Golds and Rainiers (these can be used for brining), Blacks and Bings (usually eaten fresh), or tarts which include Montmorency and Morello, more commonly used in pie fillings, juices, and juice concentrate.

CHAPTER TWO

Smells Like Money:

A Shift in the Global Market

On those long road trips up I-65 North, the pungent smell of manure would invade the van. Mckenzie and I would recoil in our booster seats, laughing through the cotton threads of our shirts we had transformed into facemasks. Though I hated the odor when I was little, and I cannot say I like it much now, it does give me a sense of home whenever I am driving through the country.

"Smells like money," my mom would always joke, rolling down the window an inch more, ensuing chaos in the back between McKenzie and me.

Having grown up on a hog farm, my mom would tell us how the smell of manure always meant there was money coming their way. The hogs were healthy, they were muscled, meaty, and ready to be sold to Heinold Hog Market, so said my grandfather; it meant that they were still in business. However, just because the hogs were healthy did not, and does not, always mean the market *needs*, nor *wants* what's been produced.

The United States functions as a capitalist democracy. Our economy operates on the basis of an unregulated, free and open market. Trade and commercial industries are dominated by private citizens, privately owned firms, or corporations, serving as independent entities. Simply put, our state laws and federal government do not control the marketplace. Though some Americans, those of wealth and perhaps affiliations to large corporate powers, would argue capitalism drives innovation and economic expansion, improves living standards, and avoids a

controlling state government, others – factory workers, laborers, and small businesses – would argue that capitalism is anything but the most efficient system.

Capitalism can cause inequality between American citizens and economic instability when the distribution of wealth falls predominantly into the hands of corporations, an extremely small percentage of our population. While some see capitalism as a window of opportunity, wealth is often passed down through inheritances (ie. born into a wealthy family, you will most likely have greater access to more money, better education, and other aspects of life like stronger health insurance for example). Capitalist markets are prone to boom and bust periods, as we've seen in the past with the Great Depression, and today, with the COVID-19 pandemic. The imbalance of wealth ultimately leads to monopolies and the exploitation of workers and consumers alike. While capitalism supposedly thrives on competition, industries still combat corporations that dominant the field and can ultimately set prices and actually eliminate competition. An example of this is the corn and soybean industries which are both heavily influenced by big agricultural corporations like Monsanto (Bayer AG) and DuPont.

A capitalist based economy and nation is flawed in many ways in what can only be described as a double-edged sword, yet still, American society and many government officials believe that it is better than command economy run countries like China, North Korea, and Cuba, where a centralized government controls the market. Appointed officials set the value of products, what products are worth producing and how much of each should be produced. This eliminates competition on a private sector level and jeopardizes the most efficient allocation of available resources. While a lack of competition may sound appealing, it sharply inhibits the creation of jobs as well as products that are allowed within the country; the government owns and controls all businesses deemed necessary towards reaching their ideal economy. It further

complicates how and which specific commodities and products are deemed valuable, and who deems them so. Command economies present a challenge of separating the self-interest and benefit of government officials from that of the nation. Although we see other countries like China and North Korea as lacking competition, which is considered necessary to our marketplace, capitalism also has its challenges. Capitalism provides our consumers the freedom to choose products they desire, but not always at an affordable price. It lacks equal accessibility across socioeconomic statuses⁴. Instead, capitalism incentivizes owners and producers to maximize their profit.

In our market, where the price of commodities is not controlled by the government, the price of a product or service is established, instead, by the balance between supply and demand. That is, pricing is dependent on "the consumers' willingness and ability to buy the product, and the sellers' willingness and ability to produce and sell the product" (North Dakota State University, 2013, Demand and Supply section, para. 1). The laws of supply and demand determine the price of products in the market. A capitalistic marketplace always seeks an equilibrium price point, regardless of whether the variables driving the supply and/or demand are considered fair or favorable. For example, if a product is low in supply but highly demanded, the equilibrium will be set at a higher price point. Conversely, a greatly supplied product with a low consumer demand will fix on a lower price point.

A single product's change in price, supply, or demand can shift other products' and services' prices, supply levels, and demand. We've seen this give and take market most recently with the Coronavirus (COVID-19). The demand for N95 masks exceeds the dwindling supply,

⁴ For example, while the United States offers its citizens health insurance, it does not mean that (a) every American citizen has access to health insurance, and (b) that it is affordable for all citizens. We disproportionately cater to our wealthy and upper-middle class citizens while our working class citizens struggle.

driving the price up as states, as well as other countries, outbid each other in the fight for protective gear for medical professionals (Whalen et al., 2020). Yet, even within a capitalistic society, there are situations like a pandemic or a monopolistic company that the US government should intervene to control production and prices.

Though the global population is exponentially increasing, reaching over 7.6 billion people (US Census Bureau, 2020), and with that an exponentially increasing hunger, the laws of supply and demand still apply to the agriculture and food markets. To not only supply the demand for food but also other products and services, the United States government has subsidized various agribusinesses; they support these, often large, corporate farms and farmers financially. The government, using money collected from citizen taxation, intervenes in the marketplace to affect product supply. For example, oversupplied crops like corn or grain that can be used for a multitude of products including animal feed, sugar substitutes, whiskey, and ethanol to name a few, are subsidized by the United States government. Subsidies are appropriations of money granted by the government to assist an industry in order to keep the price of a commodity or service favorable. When the government buys the oversupply of a product, they artificially raise the price point. With crops like corn, the government can even pay the farmer to leave acres of their farm unplanted in order to reduce the supply and raise the price point. If the oversupply of a product derives from outside of the United States, our government may assess tariffs – a duty imposed on imported products – making it less profitable for the exporter of the product.

Not all products in the U.S. are subsidized, or assessed tariffs to support their continued growth and distribution. Unfortunately, cherries have not been protected by subsidies or tariffs.

The cherry industry has been unsuccessful in influencing a change in demand and, thus, when faced with a greater supply of product the equilibrium results in a lower price point.

Got Cherries?

"Do you need cherries?" Steve asked me. I frowned, feeling as though the question was a trick. "No," Steve quickly answered, "they're a luxury. Who's gonna have them?"

He sat for a minute in his seat. Steve could tell I was slightly perplexed by this, as I frowned writing down "luxury," undoubtedly followed by a few question marks in my notebook. A *cherry farmer* himself was telling me that his own *cherries* were not necessary.

"The guys that want drinks. The guy that wants a cherry pie. You can go get a pumpkin pie, you know. You don't have to have a cherry pie," Steve explained frankly. "But can you get, like, cherry cereal? Or do you *need* cherry cereal? No. Do you need corn flakes? Yes. The government needs that, and why do you think they're helping the milk guys out?"

Steve was referring to the infamous 1993 "Got Milk?" advertisement. The campaign featured famous actors, TV personalities, athletes, models, and musicians in its attempt to boost the sales of milk. Jeff Goodby and Rich Silverstein of the marketing firm Goodby, Silverstein and Partners, were hired by the dairy industry to launch what became the "Got Milk?" campaign. For popular culture, the advertisements revealed the essential need for milk, as foods like cereal would not – *could not* – taste the same without it; Goodby and Silverstein were dedicated to highlighting the necessity of milk for the human body, wrote The New Yorker journalist, Kirk Kardashian, in his article "The End of Got Milk?". Milk is good for the bones, providing calcium to strengthen our bodies. By the mid 1990s, "ninety-one percent of adults surveyed in the U.S. were familiar with the campaign" (Kardashian, 2014). I remember seeing the posters myself

lined all along the walls of our school cafeteria. Shaquille O'Neal, Michael Phelps, Lindsey Vonn smiled at us with their "milk mustaches" as we grabbed our own milk for lunch.



Figure 2.1. The Simpsons Got Milk? Campaign, 1996 (left). (America's Milk Processors, 1996). Dwight Howard, 2006. (America's Milk Processors, 2006).

Despite the increase popularity, nutritional qualities, and becoming a typical household slogan for families across America, "Got Milk?" did not improve the sales of milk. In 1993 when the advertisements first appeared, Americans bought over 54,000 pounds of fluid milk products like skim milk, buttermilk, and others; as of 2018, American's have only bought a little over 47,000 pounds (Cessna & Law, 2019). The number has slowly declined since then.

But what does milk and the "Got Milk?" campaign have to do with cherries? That was exactly my question for Steve, yet to him, there was an unmistakably clear correlation: we do not need cherries, just as humans do not need milk. This does not mean, however, that the cherry industry does not desire the level of advertising and marketing that milk producers received in

the 1990s. Steve wants the cherry industry to have a marketing campaign like "Got Milk?", but more effective at sparking buyers' interest and influencing them to see cherries as an essential part of their diet thereby increasing their demand for cherries. He envies the milk industry for their ability to secure government support.

"I'm thinking they'll [the United States government officials] agree with me. 'Yes, your commodity is not necessary.' If it went by the wayside, nobody would starve," Steve iterated. "That's our battle we're fighting. We want to stay as a farm – as cherries because we like doing it and we got the perfect place to raise them," he said, motioning to the window, to his fields across the street and behind the house. "We don't have...we can't raise corn here."

What Steve argues is that the cherry industry needs a defined purpose and money. Just as "Got Milk?" emphasized the health benefits of their product in the hopes of supporting diary producers and farmers, Steve believes cherries, too, need more testing to determine the nutrients cherries possess in order to transform them from a luxury food, into one that also contributes to maintaining good health – one that is stocked in the fridges of every family across America. While marketing agencies have tried in the past to promote cherries, Steve argues there needs to be a greater effort.

"The Cherry Marketing Institute, their idea was 'let's get 'em in the schools, get the kids hooked on 'em.' Did you have cherries in your schools?"

"No," I responded.

"See, so they didn't do a good job. Do we have cherries in our local schools? No."

Steve smiled at me, though I could tell there was irritation behind it. He shook his head and crossed his hands on the table taking a deep breath. In the state that produces the most cherries in the nation, Steve could not believe that Michigan officials – at the least – were and

continue to be unsuccessful at identifying more media and marketing initiatives for the industry.

He did not seem to dwell on it much longer before nagging on Becky.

"Do we like dried cherries? We love 'em. Do we buy 'em that much? No, because Ma doesn't want to pay the \$22, whatever it is, for the five pound box of cherries!" Steve laughed pointing at Becky. Becky tried to protest, laughing as well, but Steve was quick to cut her off. "What does she go buy? Raisins. Do I get mad? Yes!" Steve turned to Becky. "We produce cherries and you're not even buying 'em!"

Becky laughed, explaining her freezer *is* full of cherries, and how they cover their needs for the whole year. Steve only shook his head, playfully waving her off. Regardless of their own cherry purchasing – or lack thereof – Steve still advocated for establishing an overall message promoting cherries. In a 2018 journal, "A Review of the Health Benefits of Cherries," authors Darshan Kelley, Yuriko Adkins, and Kevin Laugero argued that cherries are "a rich source of polyphenols and vitamin C which have anti-oxidant and anti-inflammatory properties." They concluded that though limited, other published reports indicated that cherries benefited individuals with arthritis, diabetes, blood lipids, sleep and cognitive functions (Kelley et al., 2018).

Studies examining the health benefits and effects of cherries have, and continue, to be conducted, suggesting that there should be a push in the market for consumers with underlying conditions to buy cherry products; however, the greater issue with cherries is that they lack both the number of people willing to support them and the funds themselves to advertise and advocate for their fruit on a national level. Unlike other industries (e.g., the milk industry), the cherry industry is a small community of growers across the nation. The Cherry Marketing Institute, run by the Cherry Industry Administrative Board (CIAB), is made up of less than thirty-five

representatives from states like Michigan, Oregon, Washington, New York, Utah and Pennsylvania (CIAB, 2019) and is independently run, without government assistance. Comparatively, the American Milk Processor Education Program (MilkPEP) is funded by milk companies across the nation, led by roughly twenty members who represent fifteen regions, and is monitored by the United States Department of Agriculture's Agricultural Marketing Services (MilkPEP, 2020). While cherry farmers have representation in their respective producing states, they lack both the funding and federal support to market their product effectively and invest in testing that would further demonstrate cherry's nutritional value.

Though the milk industry has found alternative ways of working together, and with the assistance of the government, it does not necessarily mean dairy producers do not have competition among themselves. I asked Steve if cherry farmers were competitive. Lucky for him, the maraschino cherry industry is a niche and, as one of three producers in Michigan, he did not feel immediate competition despite the industry's global competitors like Luxardo; yet, you cannot go anywhere up north without seeing the local Cherry Republic signs, t-shirts, mugs, and ice cream.

Founded in 1989, Cherry Republic has become arguably the most iconic retailer and innovator in the cherry industry. Cherry Republic is a local, Michigan based company that sells all things cherry. Since founder Bob Sutherland started selling t-shirts out of his car sporting the company's logo, "Life, Liberty, Beaches and Pie," the company has grown to sell over 200 cherry based products, from chocolate and sugary candies, to meat glazes, salsas, and beer, in addition to supporting local cherry farmers in northern Michigan (Cherry Republic). Cherry Republic has helped put cherries on the map for consumers, and in turn, receives all of their cherry supply from Michigan growers. Steve, and other farmers, cannot get enough of the

company's creative practices and products. He believes if there were more cherry retailers and innovators like Cherry Republic, the industry would succeed, capitalizing on new avenues for gaining consumers' desire for sweet, savory, and healthy treats.

"They [consumers] love it. Most farmers, they see it [Cherry Republic] as 'this is one guy that's trying to promote something we grow," Steve said. "It's like, we need more of these guys! If we had more of these guys – Cherry Republic guys – we wouldn't have to have a marketing order. We wouldn't have to have the government involved. We wouldn't be losing farms."

Steve laughed as he recalled visiting the Glen Arbor Cherry Republic store once before during the summer, referring to it as a "zoo," crawling with tourists, customers, and cherry lovers all the same. Though Cherry Republic dominates Michigan, the company has utilized their platform to highlight challenges facing the cherry industry.

Dump 'Em or Ditch 'Em

In August of 2019, Michigan tart cherry farmers once again had to say goodbye to tanks of cherries. Tart cherry farmer, Nick Fouch, of The North Farms, dumped sixteen tanks of his tart cherries on the side of the road as he and his father were forced to shut down two of his family's three cherry farms; his father, Raymond, added that another 80,000 pounds still on the trees would also be shaken off the following day (Campbell, 2019). The dumping came midharvest in 2019 when Michigan tart cherry processors notified their growers that they had reached the maximum amount of cherries they could accept that year. Without processors to buy their cherries, even for the most degrading price of \$0.08 per pound, as Steve had mentioned earlier, farmers had no choice but to dump their cherries and watch them, and their farming operations, rot. It was costing them more to grow their cherries than the price they were

receiving per pound. Wasting – dumping – food is unnatural for the farmer, Steve told me. It goes against every fiber in a farmer's body.



Figure 2.2. Santucci Farms dumped 40,000 pounds of tart cherries back in 2016 when cherry imports, once again, dominated the market. (Pagan, 2016)

"That's what it is, Haley," Steve began. "It all comes back to...the farmer in his heart and in his brain – he cannot destroy product. He cannot divert it."

Steve was visibly upset. He was thinking of generations of farmers before him, his friends, and fellow northwestern Michigan farmers. A farmer's job is to cultivate and collect all their produce – as much as possible.

"He [the farmer] cannot..." Steve started. He paused and looked at me. "It is so mentally hard. It's like, I don't know what to compare it to," he admitted. "We were growed up 'you can't waste food. Cut the rot out and use the rest of it, right?' So, that in a farmer is bred right into him through generations. 'You cannot waste."

Michigan cherry growers are not the only farmers who have had to dump their produce. In a recent New York Times article, "Dumped Milk, Smashed Eggs, Plowed Vegetables: Food Waste of the Pandemic," journalists David Yaffe-Bellany and Michael Corkery reported that thousands of gallons of milk and eggs were dumped into manure pits due to the COVID-19 pandemic. Because restaurants, schools, hotels, and other businesses are shut down, farmers have a surplus of their product that they are no longer able to sell. Especially after weeks of concern about "shortages in grocery stores and mad scrambles to find the last box of pasta or toilet paper rolls... Dairy Farmers of America estimates that farmers are dumping as many as 3.7 million gallons of milk each day" and "a single chicken processor is smashing 750,000 unhatched eggs every week" (Yaffe-Bellany & Corkery, 2020).

Just like cherry dumping in Michigan, citizens are questioning why the food cannot simply be donated to homelessness charities and organizations, food pantries, shelters, and other non-profits. It seems wasteful, cruel, selfish for farmers to dump their produce rather than help those in need, especially in a time of global crisis and panic. Even I caught myself questioning why we would allow farmers to waste their food; however, the issue is more complicated. With products like milk, it is illegal for dairy farmers to sell or donate their raw milk which has yet to be pasteurized. Yet, even beyond milk's specific challenges, donating the excess crops from a farm is difficult. Not only do farmers lose the money they invested in their crop that year and the money they would have received from the market, no matter how low (even \$0.08 is better than \$0.00), they ultimately are unable to support their own families and business. While the Agricultural Improvement Act of 2018, also known as the Farm Bill, signed into law by President Trump, allows for farmers to make donations and be compensated through a tax deduction, not enough farmers know of this option. Additionally, it appears the government absolves itself of liability, stating that,

Section 4203 of the 2018 Farm Bill amended the prior authority and eliminated civil

liability for states, counties or county equivalents, local educational agencies, and entities of persons authorized to facilitate the donation, storage, preparation, or serving of traditional foods by the operator of a food service program. These organizations and persons are not liable in any civil action for any damage, injury, or death caused to any person by the storage, preparation, donation, or serving of traditional foods... (USDA, 2019, Section 4203 of the Farm Bill).

I understood what many cherry farmers were feeling, though, of course, not synonymous to their experience losing not just their produce, but also their livelihood – retirement and 401k savings for some. As a child, my sister and I were taught the same lessons: you eat what is on the table, you eat it all, or you do not eat. You could remove my mother from her farming childhood, yet the ties to morals, lessons, ways of life on the farm were permanently embedded in her character. I would watch her scrape pans, bowls, tupperware clean of any signs of remaining food and store it in our fridge. She was a master of leftovers, and as much as I complained about leftovers-for-dinner-nights as a child, I too find myself scraping at bowls, wiping them clean so that every ounce of food is used.

"I'm so OCD about it," I told Steve. I explained to him popular trends of people sharing cooking videos such as, Tasty and Food Network, on social media, where they fail to salvage every last drop of food. "It annoys the heck out of me," I laughed, "when they don't scrape the bowl *all* the way!"

It was difficult for Michigan cherry farmers to understand the need to dump cherries.

While some Michigan residents blamed cherry growers for the mismanagement of their production, others quickly directed attention across the world at Turkey and Brazil as cause for the dumping.

Prior to 2018, Turkish cherry producers could import their cherries into the United States, duty-free. Because Turkish producers were able to export their cherries without tariffs to the U.S., they caused a change in the supply of cherry products in the marketplace, yet the demand

for cherries remained the same; thus, the price for cherries decreased. Despite the decrease in price, the oversupply of cherries could not be absorbed by the market; therefore, Michigan growers like the Santucci's (Figure 2.2) were forced to dump their cherries.

In 2018, Turkish cherries were no longer on a duty-free list ("Cherry imports from Brazil," 2020); however, the duty imposed by the current President of the United States, Donald Trump, and his administration was not significant enough to correct the price point of cherries. Because the U.S. was aware of the Turkish government's subsidizing of their cherry growers – though unaware of just how much subsidizing the government provided – President Trump went forward with imposing "a half-cent tariff per liter on cherry juice imported from Turkey" (Laing, 2019). It became clear to Michigan farmers and lawmakers, however, that Trump's duty proclamation did not significantly impact the market as the price that tart cherries processors were willing to pay did not appreciably increase.

Perhaps part of the reason the price of cherries did not appreciably increase is because Turkey also rerouted their imports through countries like Brazil that were duty-free. In fact, some government officials, like United States Senator Gary Peters (D-Michigan), became suspicious when, after Turkey was removed from the duty-free list, imports of tart cherries increased from Brazil, a country with no history of tart cherry production. Sen. Peters drafted letters to the Committee on Homeland Security and to the Governmental Affairs Commissioner, Mark Morgan, requesting that the U.S. Customs and Border Patrol investigate the possibility of misidentified imports from Brazil in an attempt by Turkey to circumvent tariffs; yet, Sen. Peters believed the request was not enough. Thus, in an attempt to fiercely combat Turkish imports, Sen. Peters petitioned on behalf of Michigan growers and communities to impose a *new* 650

percent tariff on dried tart cherries from Turkey in 2019, wrote Laing (2019), increasing the price of \$1.00 worth of cherries to over \$6.00.

While the request may seem exorbitant to those unfamiliar with cherries, the 650 percent tariff takes into account Turkey's subsidies of farmers. Grants, investment incentives, tax credits, land provisions, and loans, to name a few, all support cherry growers in Turkey, which in turn, allows them to grow cherries for an artificially cheap cost with the financial assistance, and thus, make a profit, compared to American tart cherry farmers who lost more money raising their cherries than they made selling them to processors.

The cherry industry was at a financial disadvantage, though, because they did not have an established and federally recognized lobbying group, unlike big crop industries like corn and oil. The cost of fighting lawyers and lawsuits would be too expensive for growers. However, hope grew when news that five cherry processors – Shoreline Fruit LLC and Cherry Central Cooperative of Traverse City, Michigan, Graceland Fruit Incorporation and Smeltzer Orchard Company of Frankfort, Michigan, and Payson Fruit Growers Co-op of Payson, Utah – filed a trade action lawsuit against Turkey with the United States International Trade Commerce (USITC) and the Department of Commerce (USITC, 2020, Status of Proceedings section, para. 2). The ITC board approved the petition, believing there to be "reasonable indication" that imports of tart cherries from Turkey have harmed the U.S. industry" in a unanimous vote, 5-0 (Noble, 2019). After the USITC's unanimous vote, the federal investigation moved to the United States Department of Commerce, where, if it was demonstrated that Turkey was, in fact, subsidizing its producers and exporters, they would "instruct the U.S. Customs and Border Protection to begin collecting cash deposits on imports of dried tart cherries at the subsidy rates" (Noble, 2019).

On January 16, 2020, as I was in Michigan conducting interviews for this thesis project, news broke that the USITC had rejected the complaint that dried cherry producers had filed against Turkey's trade causing dumping of their product in the U.S. market. In their official report, the board of the USITC studied the information obtained from the U.S. Department of Commerce's investigation of the Turkey cherry industry. The USITC took the information provided and ultimately decided against the tariff as follows:

The United States International Trade Commission (USITC) today determined that a U.S. industry is not materially injured or threatened with material injury by reason of imports of dried tart cherries from Turkey that the U.S. Department of Commerce (Commerce) has determined are subsidized and sold in the United States at less than fair value (USITC, 2020, "Dried Tart Cherries," para. 1).

The vote was once again unanimous, however, this time in opposition to American cherry growers. After months of waiting, cherry producers were out of options and money. They had to wait until February 18 to understand what information the board gathered that led them to change their votes completely; appealing was out of the question. An ally to the northern Michigan cherry farming community and Coordinator and District Extension Horticulture Educator at Northwest Michigan's Horticulture Research Center (NWMHRC), Dr. Nikki Rothwell, could only describe the loss as "a huge blow."

"We were really optimistic," Dr. Rothwell told me in her office. It was the middle of a snowstorm and yet she and her staff continued to work in the NWMHRC, partnered with Michigan State University (MSU). "The original group that looked at it [lawsuit] thought we had a really solid case. Then the International Trade Commission came back and said we didn't."

Dr. Rothwell shook her head as I listened to her voice concerns she had for farmers – friends and family – she had worked with over the years. She explained to me how the lawsuit worked. "The lawyers only have access to public data at this point, and then the ITC has access

to confidential data that we wouldn't have access to. So, we may never know exactly why they voted [favorably towards Turkey cherry imports]," she told me.

Dr. Rothwell sat back in her chair across from me in her office. "At that point, there's only five people that sit on the commission right now. They voted unanimously that we did not have a case," she concluded. Dr. Rothwell shook her head and crossed her arms. She pushed her square-framed glasses back on her nose, brushing the strands of her short blonde hair behind her ears. "That was a total flip-flop so we were all kind of really surprised."

Despite her disappointment with the verdict, as many Michigan residents and farmers including Steve felt, Dr. Rothwell did not disagree that the tart industry in Michigan has an oversupply issue.

"Some years we have a really good crop, some years we have a poor crop, so we try to balance that out with the federal marketing order. I don't want to get too deep into that," she laughed, "but that variability in crop is really hard on – it's really hard to be a buyer. Sometimes the variability in our crop load really prevents us from being that consistent product."

As Dr. Rothwell had in our conversation that snowy morning, Steve too lamented the unanimous decision the USITC board had made. When I asked him what it would be like to be solely a tart cherry producer now, he only shook his head.

"Oh, that would be heartbreaking," he responded firmly. "Because you would be, like, I'm doing all this work for less money saved up. Otherwise, you know, I don't know."

Steve could not help but feel a sense of relief looking back at his own family history, thanking the men before him for switching to maraschino cherries despite the industry's own competition with overseas growers and producers. In many ways, the harvesting of the maraschino, stem-on cherries contradicts what tart cherry farmers struggle with. Unlike other

cherries, Steve does not have to wait for his cherries to be bright red. He does not have to collect every last cherry from his trees, even though he too combats feelings of wasting his produce.

Steve and his family pick their cherries when they are green, as their flavor will be stripped anyways in the brining process. They only have to ensure that the stem is connected to the cherry.

"Now, do we get all of 'em, off the tree – no, we don't," he told me. It was a tart cherry producer's worst nightmare leaving cherries on the tree, produce that would never sell, yet it made sense considering so many of their cherries were wasted in the end anyways. "We have to accept that we're going to leave some on the tree." Steve paused, he laughed a little and threw his hands up in the air. "Cause you can only shake the tree so hard."

Cherries left on the tree, Steve explained to me after I asked, were left for the mice, for decomposition in the soil around his trees. Of course, other farmers have given Steve a hard time for the way he manages his farm, sometimes out of humor, other times out of curiosity and criticism.

"Most people are like, 'why are you into that cherry [maraschino cherry]? It ain't even a cherry. You destroyed the whole cherry," Steve retold, but he threw his hands up. "Because they want to pay money! So, I don't care what they want to do with my cherry. As long as they pay me money for 'em, right?"

Allowing cherries to remain on the tree is a practice that has taken Steve and his family time to get used to, one critiqued by most cherry farmers, Steve knows, yet a practice that has, nonetheless, helped him avoid the devastating outcome for tart cherries today. For Steve, his farm is alive, prospering in a niche market other cherry farmers were not – and *are* not – inclined to join.

Regardless of the cherries he grows and his harvesting methods compared to those around him, Steve believes that more support is needed in the industry. Yet, while federal funding like MilkPEP receives more inclusive Farm Bill amendments for their farmers as well as greater advocacy from politicians which would help the small, family farmers across the nation more than they currently receive, Steve does not necessarily want more government intervention.

"That gets a little bit harder because now you get the government involved. So then they're like we only allocate so much money for this and this and this, you know. And we need to feed our kids cheap. We want to feed them healthy, well, but they don't really need your product."

Steve continued. He unbuttoned his fleece sleeves and leaned forward on the table.

"You see a lot of orchards going under. You see a lot of these bigger guys...the Drew Grays* and the Smiths*... they're big, they have, whatever, 400 plus acres," Steve explained. "They contract, take care of other people – the little guy – so the little guy can still be in business."

From Small Farms to Big Time Players

If farmers are not losing to the global market like tart cherry farmers are, then there is a good chance they are losing to industries much closer to home. The "little guys" are competing against big-time players.

"What did the grain industry do?" Steve asked me. We had been talking about the disappearance of cherry farmland to tourists' mansions, the Michigan conservancy, and developers. "They went big. I mean, you know, at least that's what you see. But they can do it. I don't know if you could go big easy in cherries."

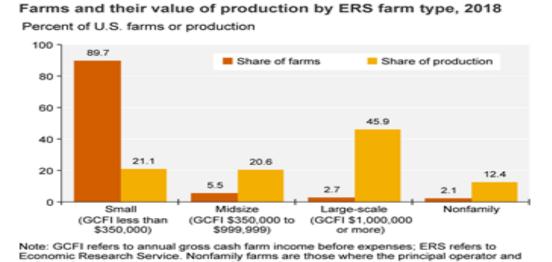
While maraschino cherries have avoided competition with large, monopolized farms, perhaps because of their divisive nature and status as a luxury commodity, other agricultural industries like grain, corn, dairy, pork, poultry, and beef to name a few, must compete against what has become the modern farming practice: corporate farming.

As we have seen throughout history, such dominating corporations did not always exist as an agricultural model in society; however, when the nation industrialized at the turn of the twentieth century, the agricultural industry and market changed. As discussed earlier, new technology, machines, and tools improved efficiency both directly on the farm and across the country's growing consumer market. With industrialization, however, came specialization. *Crisis and Opportunity* author and Professor Emeritus of Agriculture, Food and Natural Resources, John Ikerd, discussed the impact specialization has had on the agricultural industry since the beginning of the twentieth century. Specialization, in the industrial sense, is referred to as a division of labor. Picture Henry Ford's assembly line: every employee has a specific task they must complete that contributes to the finished product. Specialization was just that – a standardized, routinized, and mechanized production management process which "allowed control of production to be centralized or consolidated with fewer people making decisions but with each manager controlling the use of more land, labor, and capital" (Ikerd, 2008, p. 34).

In the agricultural community, specialization took shape in the corporatization of farms. At first, corporations included families in the process of commercializing and expanding their farming operations. While family farms were, at first, permitted to keep their capital intact, Ikerd (2008) wrote, eventually, the economic expansion of the corporate operations exceeded the family farmer's financial capabilities (p. 35). Many large, corporate farms are still family run – a common misconception – however, they are influenced and managed, to varying degrees, by

even larger corporations. Examples of commercialized food corporations that control farmers' productions are Monsanto, Perdue Farms, and Tyson Foods.

Acknowledging both the selfless need to supply a growing population – now at roughly 7.6 billion people – with enough food to sustain itself, while selfishly dominating an entire industry, thus protecting the farm's personal assets, the large-corporate and industrialized farm has become a symbol of modern farming. Despite 90 percent of U.S. farms categorized as small, family operations in 2015, small farming operations accounted for only 24 percent of the value of production; conversely, large corporate family farms contributed 42 percent (MacDonald & Hoppe, 2017).



their relatives do not own a majority of the business.

Source: USDA, Economic Research Service and National Agricultural Statistics Service,
Agricultural Resource Management Survey. Data as of November 27, 2019.

Figure 2.3. USDA graph measuring the percentage of farms in the US and their overall production. (USDA, 2018).

As of 2019, the USDA reported that the overwhelming majority of farms in the United States are small family farms. Small family farms accounted for almost 90 percent of all U.S. farms as seen above in Figure 2.3. Although small, family farms dominated the percentage of farms across the nation, it is large-scale family farms that account for 46 percent of the value of

food production despite only accounting for 3 percent of farms; that is a 4 percent increase in the value of production since 2015 (USDA, 2018). With the financial means to do so, such family-run corporate farms have embraced the use of advanced technology, attempting to feed the exponentially increasing world population, which they have succeeded at (Figure 2.3); however, their domination of the food industry has come with costs and consequences. The power that large-scale family farms wield in our society has effectively destroyed the small farmer and rural America as we once understood them to be. It may seem like small, family farmers are prospering – they must be! Right? – because small farms account for 90 percent of farms in the United States. However, this is not the case as they cannot compete equally – at the same production rate – with large-scale farming operations in the market, as we have seen (Figure 2.3).

In an attempt to alleviate the challenges farmers were facing due to trade wars with China, Trump's 2018 Farm bill allocated over \$860 billion towards American Agriculture (Stein, 2018). Though the Bill stated it would provide payments to *all* farmers for the economic harm they suffered from trade wars, NPR journalist Dan Charles argued in his 2019 article, "Farmers Got Billions From Taxpayers In 2019, And Hardly Anyone Objected," that payments were "based on production; the bigger the farm, the bigger the payments." The bill ultimately bailed out large, corporate farms, while the smaller, local and family-run farms, like those in Michigan, continued to struggle.

Yet, much like how maraschino cherries were contested in the past for their questionable practices, the increase in corporate farms has created skepticism among fellow farmers and consumers alike. In his journal article "The Battle Over America's Farmlands: Corporate Farming Practices and Legislative Attempts at Preserving the Family Farm" for *Drake Journal of*

Agricultural Law, Drake University Professor of English and Political Science J. Michael Boomershine, Jr. examined corporate farming in America and its impact on small farming. He argued that corporate farms have been, to a degree, demonized and misconceived by society, noting a double standard between family and corporate farms. "Although family farmers commodify agricultural products," Boomershine (2017) wrote, "it is apparent that society has a general notion that corporate farmers commodify agricultural products and the underlying value systems of agrarianism" (p. 374). He believed the media and some lawmakers highlight only harmful corporate practices that break the ethics of what it means to be a farmer, which leads to stricter anti-corporate legislation. Boomershine (2017) argued that corporate farms follow the simple "rules of the game" outlined in *Capitalism and Economy* by economist Milton Friedman who asserted that, "there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game" (as cited in Boomershine, 2017, p. 375).

Boomershine (2017) admitted that corporate farms have not always *legally* set exemplar practices. In 2008, director Robert Kenner released his documentary, *Food Inc.*, which examined corporate farming across the United States. Kenner found that agribusinesses produce food that is both unhealthy for the environment and the livestock, even citing that employees under contracts with big companies like Tyson Food and Monsanto felt restricted and undervalued (*Food Inc.*, 2008). Boomershine (2017) acknowledged that an important question arises from Kenner's *Food Inc.*: "What are the legal and practical implications of corporate farming practices on American agriculture overall?" (p. 369). Under contractual obligation, family farmers are forced into working "around the restrictions imposed by corporate farmers, or to cease farming altogether" (p. 369).

Despite the perhaps unequal challenges corporate farmers face, Boomershiner (2017) ultimately believed that when examining anti-corporate bills and acts, our government should take into account how such restrictive measures could harm small farmers. He concluded that while the debate between corporate versus small family farming has turned into an "either or" situation, "requirements such as minimum and mandatory stockholders with a fourth degree of kinship; gross profit maximums; and general entity considerations imposed by anti-corporate farming statutes can bring farmers – even family farmers – within the restrictive and limiting provisions of these statutes" (Boomershine, 2017, p. 388). Legislation against corporate agriculture, thus, should take into consideration their impact on all farming within their state.

The controversy surrounding corporate farms extends beyond the courtroom, though. In popular culture, corporate farming operations have become synonymous with growing poor quality, genetically modified and falsified, chemically induced products all for the sake of financial gain. While it is true that large farms have access to scientific and technological advancements that are changing how humans grow crops and feed mass populations, giant conglomerate farms owned by families have taken offense to misconceptions about their farming processes. Large, family farmers were interviewed for a 2018 article, "Corporate Farms vs. Family Farms: What's the difference?" for *Kansas Farm Food Connection* (KFFC), a local Kansas organization partnered with eight other Kansas agriculture organizations to provide resources for farmers. One corporate farmer, Jacquelyne Leffler, argued that there is no physical difference between a family farm and a corporate farm; however, she did admit that "the large corporate farms might have more of a direct path to the grocery store shelves than the smaller farms" (KFFC, 2018).

Smaller farmers would argue that there *is*, in fact, a difference physically, whether it be food quality or size. Corporate farming has impacted practically every agricultural and food based industry, including livestock. In a recent documentary, *Right to Harm*, directors Matt Wechsler and Annie Speicher exposed "the devastating public health impact factory farming has on many disadvantaged citizens throughout the United States" (*Right to Harm*, 2019). Across the nation, both small, family farms and rural community members are suffering from the effects of corporate farming beyond a competitive market that opts for lower prices, which only large farms can survive on. *Right to Harm* ultimately exposes a rather unknown challenge to farmers and communities: Concentrated Animal Feeding Operations (CAFOs).



Figure 2.4. A poultry CAFO. (Lilliston, 2019).

CAFOs function like any other corporate farm, only that they are specific to animal production. These farms have packed thousands of chickens, cows, hogs and other livestock into confined spaces. According to the USDA Natural Resources Conservation Service (NRCS), CAFOs operate with more than "1000 animal units confined on a site for more than 45 days during the year" (NRCS, n.d., "Animal Feeding Operations," para. 2). These animals are congregated in a small land area, restricted from naturally wandering, feeding or grazing in

fields. Though the roughly 450,000 CAFOs, along with other corporate crop-based farms in the United States greatly contribute towards feeding our growing population, Wechsler and Speicher (2019) revealed that "facilities produce millions of gallons of untreated waste that destroys the quality of life for nearby neighbors" (*Right to Harm*).

I had the opportunity to see *Right to Harm* when it showcased in the 2019-2020 Indiana Heartland Film Festival as well as listen to co-director Annie Speicher speak. Speicher commented on the communities they befriended and interviewed who lost access to clean water and were forced to move from their homes due to contaminated air quality and waste. Children and the elderly alike became sick, some developing cancer, others forced to spend thousands on medicine, due to the impact of neighboring CAFOs.

Despite the health concerns caused by corporate farms, CAFOs included, what is perhaps more concerning is the government's reaction. Ikerd (2008) was featured and interviewed in the film. He questioned whether "the economic rights of agribusiness corporations is more important and will take priority over the basic human rights of people" (*Right to Harm*, 2019, 1:14-1:28), as most community members and small farmers are questioning today. The corporate farm ultimately leads us back to the challenge of a shifting market, and the concept of *acting* and *voting* in one's own self-interest.

Michigan cherry growers are not the only farmers, as we have seen, struggling to remain competitive within their industry. From global competition and the lack of government regulation and control of imports, to the increasing presence of corporate farming and potentially harmful anti-corporate legislature that could affect all types of American farmers and their

operations, small family farmers are disproportionately disadvantaged. They lack the governmental support and activism with enough power to control decisions that affect their operations. As corporate farming expands, small family farmers lose to a capitalist system that favors the wealthy. Fighting the changing global marketing and corporate farming further affect farmers who are already combating debt and politicians who don't understand their everyday challenges and ways of life.

CHAPTER THREE

Don't Put All Your Eggs in One Basket:

Combating Debt and Politicians

My grandmother, Evelyn, had grown up in Wolcott, Indiana, moved to Goodland after marrying, and lived there until she moved to an Indianapolis assisted living center just minutes from my home. The second-to-youngest child of nine siblings, she, like my grandfather, was raised on a farm run by her father, Thomas James Clark. Like so many families before them and so many since, the Clark family emigrated from County Cork, Ireland in the late 19th century as a result of the Great Irish Potato Famine in 1845. After saving up enough money from prior farm jobs, the Clarks decided to venture west and settle in Indiana, starting their own farming operation, where my great-grandfather Thomas successfully ran the farm while his wife, Rose, raised their nine children.

My ancestors were examples of countless individuals seeking and living the American dream so frequently discussed and touted in our society; the dream of opportunity, success, and happiness for themselves and their children. In 1933, however, the Great Depression destroyed the nation. My grandmother was in the third grade. Her parents had owned the farm for years and had every intention of keeping it, passing it from one generation of Clark sons to the next.

Thomas had one \$100 payment left to make to the bank on the farmland when the effects of the Depression swept through Indiana. The Depression was no longer distant news, stories, or hearsay. The crisis had made companies and banks struggling to survive the fallout stricter – less forgiving – as every penny in their pockets counted.

The Clark family farm owed their last property payment to DeVore Mortgage Company, a "very strict insurance company," as my grandmother described it once to my Aunt Elaine and Uncle Mike (her oldest daughter and youngest son). DeVore and the bank, however, refused to waive, delay, or receive only partial payment on the outstanding \$100 bill my great-grandfather needed to save the farm. With only the one payment left, the bank seized their farmland, their house, and forced them off the property.

In American history, we have only seen such massive financial recessions twice; once in 1933 and again in 2008, though we are in the midst of potentially the largest recession now. Reading through transcripts of my own family's struggle to pay their bills was challenging. In such an unprecedented time as the Great Depression, it was especially heartbreaking to hear of their loss, not just of their home and farm, but of their livelihood. Despite almost a century since the Great Depression, immense debt, vicious bill collectors, financial instability, and struggles with insurance still plague farmers today. While the Great Depression can be seen as a cause for the heightened financial challenges farmers faced in the past, what is alarming is that the issues farmers are facing today have no singular cause. Left and right, it seems farmers are filing for bankruptcy, going hundreds of thousands of dollars into debt due to high production costs and low income returns, warding off banks and bill collectors who wait to seize both farmland and home properties.

For the average American, we must pay for similar provisions in life – groceries, clothes, house and apartment payments, whether it be rent or mortgages, small luxuries like phones and televisions, and education to name a few. Farmers, however, incur costs beyond that of the average American; while we have a steady, fixed income, the additional costs farmers incur directly affect their source of income. In addition to the standard costs Americans pay for,

farmers must also pay for their equipment, as well as health, life, automobile, and crop insurance. For those who raise livestock, there are payments to feed companies, others to seed and chemical spray companies. The list goes on, with limited solutions that seem feasible to both farmers and our government. Such heavy costs have left farmers describing their operations as "getting by."

"Getting By"

Having grown up in a family where practically every last item we own is insured, down to our phones and laptops, insurance is a vital possession to most Americans. It protects us — guarantees us compensation from either a private company or the government itself, when we experience loss, damages, illnesses, death — whatever life may throw at us. Thus, insurance is considered essential, though as we have seen, not everyone in our society has access to it, nor does everyone have equal insurance coverage.

Admittedly, when I spoke to Steve about health, equipment and crop insurance coverage, I expected Steve would agree with me that insurance is critical, especially for a profession like farming where accidents can easily occur at any moment. And he did agree; however, that's not to say that all farmers have been able to afford insurance. Farmers face the challenge, as American's do across the nation, of accessing strong, affordable health insurance. Though, it seems these days that quality and affordability cannot go hand-in-hand.

Good insurance – strong, reliable, and protective insurance – can go a long way, especially for farmers with restricted, tight budgets. With so many small, family farms diminishing, losing money to trade wars, corporate competitors, and uninterested consumers, we must ask the question of whether our government, our insurance companies, and implemented regulations are truly working in the best interest of the American farmer?

A Cherry A Day Keeps the Doctor Away

Steve is not so convinced.

"We normally go as a group where we have our big – our farm meetings is what we call it, but mostly it's just talking about what's going on out besides the farm," Steve chuckled. "And we're discussing about what has the government taken over and actually made better for people? You know, if they can't even keep telemarketers from calling me, how can they provide healthcare for me?"

Steve and Becky take healthcare seriously, especially considering their family works the farm, rather than hired seasonal workers. Of all their insurance coverages, health insurance is the most expensive, costing the Grant family nearly \$22,000 annually; despite the increasing cost, Steve cannot fight it.

"It's a given. Are you forced over a barrel?" he asked, referencing the price of his insurance. "Yeah. Could you go to someone else [different insurance company]? Could I go online? Would they treat me the same? I don't know," he admitted. "That's where I don't – you don't know, so then it comes back to 'I don't know if I want to find out [risk a greater out of pocket expense or be forced to use an in-network doctor].""

The Grant's healthcare insurance used to cost \$1,600 a month, something Steve admitted was already a financial hardship. He said, at the time though, the \$1,600 proved worth every penny as the insurance company he uses would provide him and his family full coverage in the event a health crisis arose; however, in March of 2010, then President Barack Obama signed the Affordable Care Act (ACA), known more popularly as "Obamacare," into law, changing Steve and Becky's insurance costs.

Healthcare is already a controversial topic in American politics, society, and our ethics; yet, Obamacare, now ten years old, is still discussed in the seemingly never-ending battle and question of whether to adopt universal healthcare. As outlined by the federal government, the ACA had three primary goals in its inception; (1) make affordable health insurance available to more Americans, through the provision of subsidies that would lower costs to consumers between "100% and 400% of the federal poverty level;" (2) expand the Medicaid program to "cover all adults with income below 138% of the federal poverty level;" and (3) support "innovative medical care delivery methods designed to lower the costs of health care" (Affordable Care Act, 2010). The ACA existing provisions and desired modifications – limits and expansions of coverage – continue to be questioned by the citizens of the United States and, in turn, debated by the representatives in our federal government. Healthcare is central to all aspects of society, therefore, the argument conclusions range from national healthcare coverage to the cost (taxation) for such coverage. It is important to note, however, that the Affordable Care Act did not establish universal healthcare for Americans but rather gave people the option to either remain with their private insurance coverage or opt into one of the offered plans provided in the Act.

Regardless of public and political divisions, however, Steve watched his bill increase.

"That's when it [insurance] went from manageable to really hurting, Steve told me about Obamacare. "You can see \$1,600 a month [increase to] \$2,600 a month like almost night and day. The first time you got that bill, it's like, 'Ugh! What can we do?' You almost wanted to cry."

Steve admitted that his health insurance provider did not force him to change health care plans; yet, in their conversations about what options he had, Steve felt that the only logical

choice was to continue with his current plan despite the major increase in price. The Grant family is managing the increased insurance cost, but at the expense of no retirement investment.

"I mean, the farm pays for our health insurance," Steve explained. "It pays for, let's say, our cost of living. Becky gets a living monthly stipend, let's call it, to go get groceries and clothes, but we don't make any income. None. All that gets turned back into the farm, so, therefore, we have no retirement."

I must have raised my eyebrows because Steve laughed a little. I did not know if this was a good state or bad state of affairs having no first-hand experience in the financial operations and management of a farm.

"We paid off the land [the farms they own] so that's debt-free now," Steve continued. He leaned over and motioned to Becky who sat by, nodding along. "We're what, I don't know, I think pretty good...we're debt free. The farm isn't borrowing money to run."

"No income" and "no retirement" may be triggering for some of us. We live in a society that tells us to begin saving our money as soon as we can, invest and allot our paychecks to retirement accounts, college funds, and 401ks. The Grants save what money they can, especially during good business cycles in the cherry industry, but those good cycles are becoming fewer due to international imports and ever-increasing costs for insurance, equipment, fertilizers, herbicides, and pesticides. The world of farming, however, is different and has changed throughout time. For many farmers like Steve and Becky, the farm *is* a source of retirement, whether one of their children takes over and continues growing maraschino cherries, or whether they must sell the land they own to real estate developers or the conservancy. Expensive healthcare coverage, or reductions in healthcare insurance that may ultimately result in higher medical bills and farm related debts like property and equipment, combined with the negative

impact of poor weather or very low selling price points due to oversupply of cherries is typically enough to force bankruptcy and the sale of the family farm.

"Healthcare is a sore subject for everyone around here [Northern Michigan] because we knew what we had before and we knew that we lost what we had before," Steve said, exhaling a breath that seemed to have been trapped in his chest for a long time. He rubbed his forehead. "So yeah, it's hard for me. It's a hard subject. What are you going to do? You can't change it, I guess. You don't see what really bothers us is, you don't see politicians suffering," he stated firmly.

Steve recounted when his own cousin, who could not afford healthcare, suffered appendicitis. After weeks of walk-in clinics telling him it was merely a stomach ache, Steve's cousin was forced to go to the hospital for the operation and pay the subsequent bills; fortunately, however, the local hospital worked to set up a payment plan for his cousin, seeing that he did not have insurance.

"If you can pay me [hospital] so much a month and then we'll give you a payment plan to cover your operation.' Who would have did that?" Steve asked. "Most people [hospitals, medical centers say], 'I don't care! Go to the bank, get the money!' But they did that for him."

While Steve's cousin was fortunate to have the hospital help him establish a reasonable payment plan for his surgery, not all farmers are as lucky. For American farmers across the nation, healthcare was cited as the number one threat to their operations, big or small (Masterson, 2017). In 2007, rural sociologist at the University of Vermont, Shoshanah Inwood, conducted a survey asking farmers what issues they were facing that most heavily affected the future of the farm. Inwood admitted that she had expected the answer to be the cost of land, crops, and the weather. The actual answer? Health insurance (as cited in Masterson, 2017). Such a physically-

intensive and demanding career has left many struggling to pay for their insurance to be able to continue their business.

Farmers are under so much financial pressure, wrote American Psychological Association (APA) journalist, Stephanie Pappas, in her article "Unique Pressures Put America's Farmers Under Stress," that organizations like the APA and Farm Aid, a nonprofit organization with the mission of helping family farmers remain on their land through country music concerts, have partnered to create awareness of the resources they can provide to farming communities. Pappas (2019) interviewed Farm Aid's Communications Director, Jennifer Fahy, who commented on American farmers' struggle to receive the mental health care they need. Not only is a farmer concerned with hurting their pride, the fear of neighbors seeing their car or truck parked outside a clinic, Fahy described, but they also combat "the fear that if you admit that you are struggling, that somebody is looking over your shoulder, waiting for that farm to go up for sale to buy it from underneath you" (as cited in Pappas, 2019).

Don't Go Tippin' Tractors

It is the mentality that the farm comes before all other matters in life, like that of healthcare, that has caused farmers to run into debt and file bankruptcy. Forgoing health insurance is risky, but it allows those desperate farmers to allot their finances towards saving the farm. What they cannot forgo, however, is the cost of purchasing and maintaining necessary farming equipment.

Farming equipment, regardless of the crop or livestock produced, is expensive; machines can range from \$100,000 to over \$300,000 depending on what is needed. Even buying used machinery is still a wad of cash out of all your pockets, as Steve told me. For just a cherry shaker head (the part of the machine that actually does the shaking) the cost was around \$23,000. The

sheer price of equipment alone is beyond the means of most small, family farmers, unlike large corporate farms that invest in utilizing premium, advanced technology and equipment.

For small, family farms or farms that have a low income, not every payment on their equipment is met, leaving them in debt to companies like Deere and Company, International Harvester, CNH Industrial, and Farmers Equipment Company. On November 27, 2019, Time journalist, Alana Semuels, wrote a heart-wrenching article on the reality of small farming in America. Her article, "They're Trying to Wipe Us Off the Map.' Small American Farmers Are Nearing Extinction" followed the Rieckmann family, dairy farmers in Wisconsin who were \$300,000 in debt at the time. Semuels described how "bill collectors [were] hounding them about the feed bill and a repayment for a used tractor they bought to keep the farm going," yet it felt impossible to make money, let alone pay their debt, as Mary Rieckmann said (Semuels, 2019).

Outright buying is not the only option, though. Many farmers who do not necessarily demand machinery for long periods of time often turn to leasing or renting their farm equipment. While it may seem like leasing or renting farm equipment is perhaps a wiser financial decision, companies that allow for such methods of payment are also restrictive and risky. Leasing equipment only gives farmers a specific amount of time to complete their harvesting for the season. Over time, the price of leased equipment can rise, and with a contractual commitment to that period of alloted time, farmers are unable to break the contract when the price exceeds their financial means. In his 2015 Wall Street Journal article "Farmers Shift to Leases, Threatening to swell Machinery Glut; Leasing out tractors, combines helps makers sustain demand but risks saturating used market," journalist Bob Tita argued that farmers lease more when the economy is down. Farmers can no longer afford to purchase equipment as had been done in the past; yet, manufacturers cannot sustain business when farmers refuse to buy the machine at the end of the

lease. Ultimately, both the farmer and equipment company are struggling to make their bills, forcing the bank to track the farmer down in order to receive the necessary payments on loans taken out to afford the equipment in the first place. For tart cherry producers who lost more money producing their cherries than they earned selling them, the thought of having to purchase completely new machinery or even simply parts that broke during the harvest season would be unimaginable, considering they still would have to pay for their other livelihood utilities.

For farmers like Steve who either own or have built their machinery, costs are not necessarily any lower. They must still insure their equipment. Grant Farms alone owns trucks, harvesters, shakers, forklifts, and tractors. In all, Steve concluded that the Grants own about six cars and trucks, and ten other pieces of farm equipment which are insured, though he mentioned that he cannot afford to insure all of his machinery at once. Instead, he changes it seasonally based on what he thinks he will need and which equipment is working best, notifying his insurance company. In more recent years, equipment that requires driving along the winding Michigan roads is especially important to insure. The height of cherry harvesting heavily overlaps with tourists, vacationers and the return of seasonal Michigan residents. Roads are not always the easiest for cherry growers to navigate.

"Let's say we're going down the road and somebody passed us and, God forbid," Steve said, "had a terrible accident and not one of our equipment is involved, we can't cover it. They could come after us, but we have no liquid funds."

What Steve meant was that if an impatient tourist carelessly attempted to pass one of the Grant's cherry harvesting equipment and had a terrible accident, even though the Grants were not directly involved, the tourist could argue that the equipment on the road contributed to their accident. The Grants would then have no liquid funds to cover legal expenses or, heaven forbid,

lose in court and be forced to pay for all or some of the accident cost. Although none of the Grants have ever lost their cherries to traffic accidents, Steve mentioned that in the past other farmers have lost entire truckloads of cherries due to impatient drivers and tourists not familiar with the demands of Michigan cherry harvesting. Across the United States, however, an accident involving a tractor or piece of farming equipment could be the make or break of the entire farming operation. As more rural towns transform into ghost towns, farmers often have to drive miles to the nearest mechanic and tractor repair, or must suffer the cost of having a company come out and fix it on site. And time wasted on repairs is not cheap nor free.

Crops Come First

For some farmers this past season, getting their equipment to work was not even worth the trouble. No matter how much a farmer thinks ahead, saves their money, dots their Is and crosses their Ts, they cannot prepare for the changing weather.

2019, according to the U.S. National Oceanic and Atmospheric Administration (NOAA), was the wettest year to date, flooding farms all across the country (NOAA, 2019).

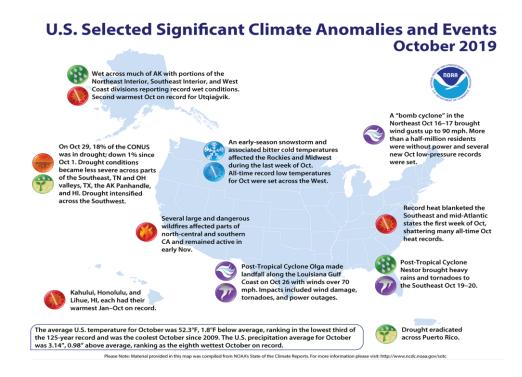


Figure 3.1. Annotated map of the U.S. revealing the significant climate and weather events in 2019. (NOAA, 2019)

As seen in Figure 3.1, wildfires devastated the west coast, cold temperatures and snowfall dominated the north, rainfall, damaging wind, and tornadoes in the south, and record heat across the midwest and southeast. NOAA (2019) reported that "above-to-much-above-average precipitation dominated much of the country with record-wet conditions occurring in South Dakota, Minnesota, Wisconsin, Illinois and Michigan." With such wet conditions, soil often cannot even support the weight of equipment. How can you plant or even harvest your crops when your farmland looks like this?



Figure 3.2. Waterlogged farm fields near Gardner, Ill. in May. (Schwartz, 2019).

In the New York Times article "A Wet Year Causes Farm Woes Far Beyond the Floodplains," journalist John Schwartz reported that farmers were "unable to plant on some 19 million acres for all crops in 2019 with more than 70 percent of those acres occurring in the rain-soaked Midwest." The USDA's Risk Management Agency revised their Prevented Planting Insurance Provisions for floods in June of 2019, stating that farmers with *insured* crops that were prevented from planting should contact their insurance company about receiving compensation for the loss. Just like health insurance, though, the better insurance you can afford, the better the coverage.

"In today's world, it's just not something you can't skimp on," Steve said. "The only way you can get it [insurance] lower is to go with the cheapest guy out there [who] gives you the cheapest rate. But are you covered sufficiently? That's between you and your operation."

Like many farmers in the U.S., Steve only utilizes the government insurance for catastrophic crop failure. Private insurance companies specific to fruit are offered, however,

Steve mentioned the prices are beyond his financial means. While the U.S. government charges him around \$650, he stated that a private insurance company would be around \$2,500, though he wasn't sure if in the event of a catastrophic event, he would get more money in return than he would be paying monthly for coverage. Ultimately though, Steve explicitly stated he did not want to ever rely on insurance and the government for a living.

"If I have to rely on insurance and the government, I'm not going to be in this business very long," he said honestly. "And that's the hardest part for me to tell all my neighbors and everything, 'cause there is one guy and that's what he said – 'that's how I'm going to do it.

Insurance is going to be my savior.' I said, 'Yes, for the first three years, but as soon as your production goes down and they use the five year average, you're going to get less and less and less until the point where you can't even survive,'" Steve said.

He shook his head. It had seemed like Steve had had this conversation more than once. He looked at me after his head stopped shaking.

"You're trying to use the system as a band-aid for the shortcomings of the industry."

According to the American Farm Bureau Association (FB), crop insurance responds to the state of the markets across all industries; the season market prices determine a company's level of coverage, losses, indemnities and premiums (Farm Bureau, n.d.). If your market lacks demand and struggles with increasing prices as we have seen occur in the milk and tart cherry industries, insurance will not, as Steve put it, be that season's savior.

When your crops and livestock are your source of income, it is best not to forego insurance. Luckily, in response to the extreme weather from 2019, the USDA's Risk Management Agency was able to help the hundreds of farmers across the nation by extending the

deadline for crop insurance premiums as well as dropping accruing interest ("Struggling farmers," 2019).

Send 'em a Life Jacket: From Farmer to Activist

Poor insurance, rising debt, unpredictable conditions have greatly impacted the small farmer's business and ability to remain afloat. Sadly, the Reickmanns are not the only small, family farmers thousands of dollars in debt today. As of 2019, farms in the United States are collectively over \$416 billion in debt (Semuels, 2019). In March of 2019, Farm Bureau reported that there were 580 filings of Chapter 12 bankruptcies, which is 24 percent higher than those filed in 2018 ("Farm Bankruptcies Rise Again," 2019). Chapter 12 of the United States

Bankruptcy Code, according to the U.S. Courts, is "designed for 'family farmers' or 'family fishermen' with 'regular annual income'" that "enables financially distressed family farmers and fishermen to propose and carry out a plan to repay all or part of their debts" (U.S. Courts, n.d.).

Creditors and debtors agree on a repayment plan so that farmers' payment obligations to the creditors are fulfilled within three to five years (U.S. Courts). The highest that the United States government has seen was in 2011 when filings reached 676.

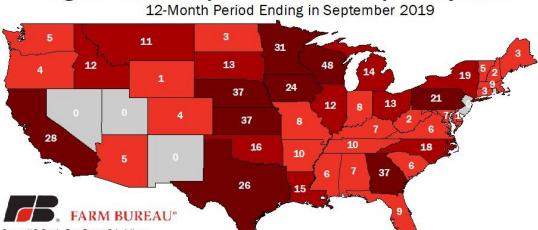


Figure 2. Total Chapter 12 Farm Bankruptcies by State

Figure 3.3. Total Chapter 12 Farm Bankruptcies by State. (Farm Bureau, 2019).

Farms in the Midwest region alone accounted for more than 40 percent, 255, bankruptcies in 2019 (Figure 3.3). American small, family farmers are struggling to adapt to changes in the market. President Trump's trade war with China, which has caused a prolonged economic downturn, ever-increasing debt to insurance, equipment, and crop companies, and lack of support has led many small farmers to point to governmental policies as the culprit for their struggles.

"To me, it's hard for me to wrap my head around how this insurance thing works," Steve confessed, "cause it doesn't make any sense. You're basically having a loss to cover the cost of farming. Why do it at all?" he asked me, but he quickly continued. "It's like, why am I doing it at all if I'm going to be losing, losing, losing. The only way that you can start getting more cherry farmers viable is to start saying, 'okay, it's gonna cost me \$0.25 a pound to raise cherries. You gotta give me \$0.26 a pound.' That's the only way."

A penny.

Though it was merely an example, Steve had a point and it was eye-opening. Small, family farmers are not making outlandish, ridiculous demands. They are not asking the government for thousands of dollars, for exponential increases in the price of their commodities, for million dollar technology and farming equipment, for better insurance coverage. They are asking for a penny more to make their job possible.

The solution seems simple, right? A penny is no big deal. A higher price for their crops – even by a single penny – then the cost of their labor could help many farmers begin paying off debts to insurance companies, seed supply vendors and more, actually one day giving them an income. I sat across from Steve thinking, heck, cherry farmers should ask for more, but wishing more money to appear is a slippery slope that I had to catch myself from falling into. Steve's simple, economic solution that could solve multiple challenges for farmers across the U.S., regardless of the commodity they are producing, takes us back to large corporate farming and their close ties with the United States government, our policies, and perhaps most importantly, our representatives and voices for the people.

Combating a vicious global market and economy, as well as combating corporate competitors has led farmers, rural community members, and agricultural specialists to question the motives of federal and state government representatives.

I asked Steve if he felt like the federal government or Michigan politicians were supporting farmers sufficiently, keeping the best interest of farmers as a priority when discussing policy changes and regulations that could affect their operations. Steve said he did not even think politicians truly understood the farmer and their struggles to begin with.

"I think most of 'em don't have a clue," he said. "I think they're so detached in Washington that if the farmer doesn't have a guy fighting for him, he would be totally lost."

Steve expressed his grief about the trajectory of agriculture in America, going from a country "for farms" when the farmer was the most important asset, to a society that does not seem to care where their food comes from.

"I don't care if you're [politicians] a Republican or a Democrat – you preach 'we were going to help you guys out. You are so bent on whether you lose power or not that the farmer is lost.' He's [the farmer] way down on the bottom [of politician's priorities]," Steve told me.

"They're so worried about their power. Yeah, they're not helping us one bit. Not one bit."

If other farmers across the nation were feeling as Steve did, it left me wondering what kind of farmer exactly politicians were for. In response to the United States-China trade war, the Trump administration provided a \$16 billion aid package for farmers; however, the nonprofit, Environmental Working Group (EWG), reported that of the \$8.4 billion already given out to farmers as of July 31, 2019, the money has mostly gone towards wealthy farmers, "exacerbating the economic disparity with smaller farmers" (Reiley, 2019). The U.S. Department of Agriculture stated that the relief program is "designed to provide a level of support that's proportionate to a farm's size and success. Payments were based on production" (Reiley, 2019). Yet, such subsidies in the United States are given towards big corporate farms and agribusinesses, as we have seen with the grain and corn industries. The Family Farmer Relief Act of 2019 was intended to increase the debt limit family farmers filed for under Chapter 12 bankruptcy from \$4.4 million to \$10 million. In his article "Trade wars, climate change plunge the family farm into crisis. Is it an endangered American institution?," CNBC journalist Tom Connor argues that neither the financial assistance for farmers nor the farm bill "will substantially change the outlook for farm country." Connor (2019) states that since the 1970s

federal farm policy which told farmers to "get big or get out", pushing farmers to consolidate, has ultimately "created decades of slow-burning crisis for many farmers."

Thus, it seems evident that politicians are defenders of the industrialized farm, forgetting about the small, family farmer entirely. Perhaps one reason as to why politicians are more inclined to support large corporate farms is because of their connections and monetary benefits. Ikerd (2008) argued that corporate farms exist "only on paper as legal, economic entities" and that the "sole motives of the corporation are to make profits and grow" (p. 38). Furthermore, "most public stockholders have no commitment to or actual control over the companies in which they own shares; they invest only to earn dividends or capital gains from rising stock prices" (Ikerd, 2008, p. 38). Between politicians and corporate farming companies and processors, the relationship is mutually beneficial: politicians support corporate farms, their endeavors, and consider them in policy changes and regulations, while the politicians receive campaign financing toward their reelection. Small, family farmers lack those powerful financial and social connections, not simply in their ability to financially support a politician but rather their ability to obtain a larger, influential advocacy group. Without a direct voice in the government supporting and highlighting the small farmers challenges, family farmers are ignored, misunderstood, and ultimately excluded.

Family farmers, however, are determined and resilient. Today, we have seen the farmer adapt to a new role: the activist. As documented in *Right to Harm*, rural communities and farmers alike are banding together to demand justice from their local government representatives for protection from CAFOs and large corporations; yet, despite their testimonies, which are often highly emotional when explaining the detrimental health effects, loss of business, insurance, and retirement funds, and loss of their own property value CAFOs and big agribusinesses have had

on them and their families, politicians vehemently sided against them. After a woman testified about the terminal cancer her father developed from the toxic chemicals a neighboring CAFO sprayed towards their house for years, one of her state politicians stated that he was tired of hearing people complain about corporate farms, citing instead their economic contributions (*Right to Harm*). Politicians are more interested in the economy and their reelection rather than the lives of their citizens. As Ikerd (2008) previously argued, "the process of industrialization has systematically destroyed family farms all across America" (p. 37), especially when backed by the highest figures in our government that can influence such a process.

Back in 2013, The Washington Post published an article "The U.S. has few farmers. So why does Congress love farm subsidies?" in which journalist Brad Plumer argued that wealthy agribusinesses were paying off U.S. politicians to vote in their favor. As we have seen with President Trump's most recent farm bill, small farmers and community members believe that the government more heavily supports large corporate farms. Steve believes that most politicians may not even understand the difference between farms across the country.

"I think the biggest problem is they don't know what's going on," Steve said. "You're trying to make laws in Washington D.C. and the guy in Michigan is a lot different than the guy in Indiana. His whole operation is different but you're treating us all, farmers, all the same."

Steve paused and looked at me. "That's what you're looking at [in] the farm bill – we're all the same."

While some farmers and rural residents argue that not enough regulation against corporate farms has been implemented and enforced by the government, others cite abundant anti-corporation policies and regulations created in order to protect family farms. In the National Agricultural Law Center for the University of Arkansas article "Preservation of Family Farms –

The Way Ahead," author, Dean and Professor of Law at Capital University Law and Graduate Center, Steven Bahls, described how states across the country have adopted laws that prevent corporate farms and investors from purchasing farmland. States like Nebraska have gone so far as to prohibit corporate farming. In 1982, Nebraska adopted Article XII, Section 8 of their state Constitution, which stated that "no corporation or syndicate shall acquire, or otherwise obtain an interest, whether legal, beneficial, or otherwise, in any title to real estate used for farming or ranching in this state, or engage in farming or ranching" (Institute for Local Self-Reliance (ILSR), Corporate Farming Law – Nebraska, n.d.). Family farm or ranch corporations, non-profit corporations, Nebraska Indian tribal corporations, however, were among a few operations that were not barred from farming (ILSR, Corporate Farming Law – Nebraska, 2020). In the state of Kansas, statutes prevent corporate farms from monopolizing farmland and the market, yet allow for family farm corporations and other specifically authorized companies to acquire land ownership and leases (Boomershine, 2017).

For Bahls (1997) and Boomershine (2017), while corporate farms raise concerns about the production of farms and monopolization of industries over the small, family farmer, preventing the existence of corporate farming is not necessarily good policy. Rather, corporate farms uplift the economy and, as Bahls (1997) argues, avoid "artificially depressed" prices (p. 313). In some cases, like that of Oklahoma, the implementation of contracts for family farmers to support Tyson Foods production benefits both parties; farmers were able to lobby to loosen the state's anti-corporate law in order to support the 150 family farms set to gain from the partnership (Bahls, 1997). Governments see the economic impact corporate farms have and wish to keep prices low, thus, jeopardizing the state of small, family farmers.

It is a challenging debate, though. Do you support the small, family farmer who makes up 90 percent of the United States farms, or the corporate farm which, though small in number, produces more food cheaply for the masses? There perhaps, is no clear answer, yet to assume that small, family farms do not support the nation economically would be a grave misconception. In fact, we have seen how the destruction of family farms and the increase in corporate farms, supported by the government, has led to the decline and disappearance of rural communities.

Don't Forget Our Rural Communities

Rural communities depend on farms, just as their local farmers depend on them to support one another's businesses. In many cases, rural communities are economic monocultures. They are dependent on a single industry like mining, farming or manufacturing to sustain their economy, their eggs all in one basket. While the increase in corporate farms in rural communities is a factor as to why towns and small farmers have disappeared, it is not the only reason. Alan Greenblatt argued that rural communities are losing their young people. In his journal article "Reviving Rural Economies," Greenblatt stated that since the recession in 2008, rural communities have been "unable to bounce back or foster industries that can succeed in the global economy" (p. 267). Steve argues the same. As rural communities' ability to provide jobs for its youth dwindled, many people, including the children of farmers, moved to suburbs and cities instead. Yet, Steve believes that despite every farmer's dream of wanting to pass down the farming operation to the next generation, they can self-sabotage.

"The biggest problem was their parents tried to stay too long," Steve described. "They had it [the farm] too long and then their kids moved away 'cause they had to support their family. You have to start sooner," Steve advised. His father made sure to begin transitioning Steve into the business years prior to his retirement, guiding him through the management of the

farm. "You better start earlier so he [next generation] gets a field. 'You have to run this part of the farm, not the whole farm, just this part."

As people move away, the farm is not the only business that struggles. Greenblatt (2017) explains that it's a vicious cycle: "As employment drops, people move away, leaving a diminished tax base to support schools and health services and fewer consumers to patronize local stores" (p. 269). Those who are left are without friends, family, and basic services like a strong health care system. While the effects of such economic devastation are clear, it does not seem like politicians are helping.

In addition to predominantly bailing out the larger farms, the Agricultural Improvement Act of 2018 cut food stamps and the Supplemental Nutritional Assistance Program (SNAP) for citizens in need (Stein, 2018). In rural America where people are largely dependent on farming to support the community, programs like SNAP keep families afloat. According to the Food Research and Action Center (FRAC), between the years 2014 and 2018, 11.8 percent of metropolitan households across the entire United States registered with SNAP, compared to all households across the United States at 12.2 percent (FRAC, 2018). Rural households, however, accounted for 14.9 percent (FRAC, 2018). When our nation's small, family-run farms fail, it impacts the lives of that family, their operations, and any hired help they may have contracted.

When I travel to Goodland with my family to visit my grandparents' graves, the town seems desolate. For miles and miles around are empty fields no longer filled with the sound of tractors. A drive through town makes me believe that no one is left, that every building, every house is, in actuality, barren. It does not have the same feeling it did during my youth, and perhaps that's because my grandparents made it feel warm, full and inviting; yet, Goodland is

just one community in the United States. There are countless others like it, some barely hanging on. While it is unrealistic to assume that the answer to the solution is forcing the youth back to their rural hometowns, it is feasible to assume that family farmers need support, and thus, their towns.

When the small family farmer struggles financially, files for bankruptcy, and lacks the necessary political support, other companies, communities, and products struggle as well. While the small family farmer and their practices may seem out of date, a flash of the past, and in need modern technology to corporations, politicians, and fellow citizens, they are essential to sustaining not just our economy, but the economic prosperity of their neighbors and business partners (the seed companies, equipment industries, and small, local businesses). Yet, just like all humans, the pressure to succeed, to prosper, and save the farm can be overwhelming, impacting the mental health of a farmer. The stigma against admitting and managing mental health – even the fundamental challenges of accessing health care due to the costs of insurance or physical distance from health care facilities – has deterred many rural, older farmers from receiving the proper medical attention needed. Farmers are resilient, however, especially when it comes to not just defending their livelihood but also their family history. Moreover, the small family farmer cannot simply be replaced by corporate powers. When we begin to understand the financial, health, and political opposition small family farmers must handle everyday, we humanize the farmer and recognize the severity of their plight.

CHAPTER 4

There is Only One Earth: The Impact of Agriculture on the Environment

If you were not living in Michigan year-round, you would most likely not notice dramatic changes in the environment around you. The water along Lake Michigan is crystal blue. Despite long, cold winters, the greenery of surrounding forests and cherry trees are in full bloom. The sandy dunes tower well above lakes, crowded with people attempting to run up them and slide back down. As someone whose family travels every summer to visit our extended family, Michigan is a breath of fresh air from Indiana. Summer in Indiana is sweltering heat, suffocating humidity, and a constant battle between whether to open the windows or turn on the air conditioning. All in all, everything appears in order. Unlike news reports, Michigan seems to be healthy and thriving to the untrained eye.

Yet, Dr. Nikki Rothwell, who has lived in Michigan her entire life, disagreed. Having served for over the past fifteen years at the Northwest Michigan Horticulture Research Center (NWMHRC) as the District's Integrated Pest Management Agent for Fruit, as well as working with Michigan State University Agricultural Extension, Dr. Rothwell knows the fruit – specifically cherry – industry well. The NWMHRC was established in 1979 and serves as a research site for "integrated pest management, horticultural production and handling, value-added processing, marketing and farm financial management practices" for Michigan fruit producers (MSU, n.d.). Alone, the center is responsible for 83 percent of sweet cherry production. Through the center and its resources, Dr. Rothwell has studied climate change in Michigan, examining how it has affected cherry production.

"Climate change is a huge issue for tart cherries," Dr. Rothwell told me. Cherries are one of the first fruit to bloom in the spring, especially up north along Lake Michigan. "We really depend on those prevailing, westerly winds to come up, across Lake Michigan, and keep our cherries cool and dormant in the spring."

In recent years, however, the climate has gotten warmer. Cherries are blooming weeks earlier than they had a decade ago, Dr. Rothwell explained. But what would be so bad about an early bloom? It is not the timing, but rather the increased vulnerability to freeze/frost events that has shifted how her office has examined the threat of climate change on cherry orchards.

"We're a little bit hillier up here [Northern Michigan] and we don't have those straight inversion frosts," she said. "It's an issue for frost freeze events in the spring but then the other thing is climate projections are warmer and wetter which drives disease."

For the past three years, Dr. Rothwell and her team have worked on an international project determining just how vulnerable tart cherries are to climate change. In their 2013 book, *Climate Change in the Midwest: Impacts, Risks, Vulnerability, and Adaptation*, Dr. Rothwell and her colleagues, Winkler et al., examined the current and future impact climate change would potentially have on Michigan cherry growth with the hopes of providing solutions. Their fears about damaging freeze events are not without reason. In the spring of 2002, Michigan cherry growers faced the worst freeze event since 1945 (Winkler et al., 2013). A wind freeze occurred in the Great Lakes region after a period of "abnormal warmth;" yet, the sudden change in temperature, Winkler et al. writes, caused "a rapid break of tree dormancy, and flower buds quickly lost their hardiness" (106). The buds were, thus, more susceptible to the below-freezing temperatures and high wind speeds. Steve even mentioned how he remembers having to set bonfires while they harvested their cherries in order to keep warm.

Table 1. U.S. Tart Cherry Production by State, 1982–2010

Years	MI	NY	PA	WI	UT	OR	WA	U.S. Total	
		million pounds							
1982	260.0	21.0	5.5	10.0	9.0	5.0	1.5	311.0	
1983	87.0	23.0	8.5	4.5	24.0	6.0	1.8	154.8	
1984	210.0	26.0	9.0	12.0	12.0	1.6	1.4	271.8	
1985	220.0	22.5	6.0	8.5	21.0	6.5	1.3	286.2	
1986	170.0	13.0	12.0	3.7	18.5	6.0	1.8	224.1	
1987	265.0	35.0	5.5	14.0	29.0	8.0	4.2	359.0	
1988	180.0	21.5	9.0	8.6	11.0	4.0	5.2	233.5	
1989	180.0	31.0	6.0	7.6	24.0	15.0	6.4	264.1	
1990	160.0	16.5	3.5	4.8	15.5	7.5	7.4	208.8	
1991	110.0	25.5	11.5	7.8	26.0	7.5	9.8	189.9	
1992	245.0	31.0	6.0	9.1	33.0	9.5	12.8	335.1	
1993	270.0	15.7	11.5	6.6	15.0	3.0	17.0	340.4	
1994	210.0	26.0	9.0	9.2	26.5	8.0	14.0	304.2	
1995	310.0	32.0	9.5	7.7	22.0	1.6	11.6	395.6	
1996	195.0	19.0	7.5	6.1	26.5	2.5	14.2	271.8	
1997	225.0	14.5	6.5	11.2	17.5	3.7	13.5	292.9	
1998	263.0	14.0	4.2	15.8	33.0	2.8	14.0	348.7	
1999	185.0	17.0	7.2	10.0	14.5	5.3	16.5	256.1	
2000	200.0	16.6	6.1	10.0	33.0	4.4	17.5	288.5	
2001	297.0	14.7	3.9	13.0	12.0	2.4	25.5	369.3	
2002	15.0	12.7	3.8	4.0	3.0	3.2	20.5	62.5	
2003	154.0	7.2	3.9	13.3	26.0	1.4	20.1	226.5	
2004	149.0	10.7	3.0	6.7	22.0	3.9	17.5	213.0	
2005	208.0	7.5	2.6	7.5	28.0	0.3	16.5	270.4	
2006	190.0	8.6	5.2	4.5	28.0	3.4	22.3	262.0	
2007	196.0	11.3	3.5	10.4	20.0	0.5	11.5	253.2	
2008	165.0	9.6	3.9	0.6	20.0	2.8	12.5	214.4	
2009	266.0	11.2	3.9	10.9	47.0	3.2	16.7	358.9	
2010	135.0	7.8	2.3	5.7	23.0	1.2	15.4	190.4	

Note: Source, Cherry Marketing Institute Statistical Handbook, various years.

Figure 4.1. Cherry Marketing Institute's record of United States cherry production by state between the years 1982 to 2010 (Thornsbury & Martinez, 2012, p. 584).

Rothwell and her colleagues were not the only ones to report on the historic loss cherry producers experienced in 2002. Authors Suzanne Thorsnbury, Chief of the Crops Branch in the Market and Trade Economics Division of the USDA's Economic Research Service, and Lourdes Martinez, former Ph.D. student in the Department of Community, Agriculture, Recreation and Resource Studies at Michigan State University, examined the market demand for cherries and the subsequent establishment of the Cherry Marketing Institute (CMI) in their 2012 *American Journal of Agricultural Economics* article "Capturing Demand for Functional Foods: A Case

Study from the Tart Cherry Industry." Taken from their study, Figure 4.1 reveals just how detrimental the freeze was for Michigan growers. In 2001, Michigan grew 297 million pounds, starkly contrasting 2002 when only 15 million pounds were produced across the state (Figure 4.1). Thornsbury and Martinez (2012) argue that the 2002 cherry production crisis allowed for the increase in imports from competitors in the international market, which ultimately put greater pressure on the U.S. industry (p. 586).

In order to determine the climate projections, Winker et al. (2013) used more than 2,000 future climate scenarios and set parameters using previous literature, additional research, and data from stakeholders to evaluate potential risks in springtime climate changes (p. 108). The team concluded that weather fluctuations created uncertainty across all scenarios for the growth of cherries and the timing of future springtime freeze injuries. They argued that the uncertainty "implies that an enhanced greenhouse climate cannot be assumed to bring more favorable conditions for Michigan's tart cherry industry" and believe that other climate change effects will create greater complications when considering shifts in worldwide production and trade (Winkler et al., 2013, p. 113).

While research and data point towards a need to focus more on climate change, society and even farmers have not always been, and to an extent are still not, keen on acknowledging the risks ahead.

"Farmers traditionally have not talked about climate change," Dr. Rothwell admitted.

Though not all farmers and rural communities are heavily conservative in their political values,

Dr. Rothwell mentioned that neither the current administration (the Trump administration) nor
the farmers' denial of changes in the environment are helping with the push to take climate

change more seriously. "They [farmers] either don't buy into climate change or they don't buy into that humans are part of the cause."

Despite their strong conservative allegiances, Dr. Rothwell did say farmer's beliefs towards the environment are changing, despite their fear that the truth of human impact on the climate would increase regulation, and ultimately, turn society against the agriculture industry as the culprits due to their use of fossil fuel-based pesticides and tractors, use of non-renewables, and other damaging tools. It has been challenging to persuade farmers to understand the dangers of ignoring climate change, as most climate skeptics respond favorably to the term "weather variability" as the source of our environment's changes. While Steve does not necessarily discredit climate change as an issue, he does argue that the media over-dramatizes the issue.

"I think they just want to have something to worry about. I think man's inherent nature is to take credit for everything," he said. But he shook his head. "I don't know. I don't keep up on that because it doesn't affect me per se – I think the media wants it to affect me."

What is Climate Change *Really*?

Steve is skeptical of climate change, just as thousands of other Americans – and people across the world for that matter – are. Our very own president, Donald Trump, has denied environmentalists' research and deemed it a *hoax*, hounding supporters like 17-year-old Swedish environmental activist Greta Thunberg. When you live in a state that experiences historically cold weather, it is easy for those who do not believe in climate change to argue against its existence – seeing is believing, right? How is climate change and global warming happening when every year the weather changes? Yet, there may be misinformation when it comes to actually understanding what climate change is exactly, and why it should be taken seriously.

Climate change, despite the name, is not simply a change in the local weather and temperature. Climate change, yes, is the change in a particular place's temperature and weather patterns, but it is also the change in the Earth's overall climate. According to NASA, Earth's temperature has increased one degree Fahrenheit in the last 100 years (NASA, 2014). Does not seem like much? The change of even one degree in the entire Earth's temperature has giant effects, and there are multiple causes. The Earth can make natural changes on its own, altering its distance from the sun, natural disasters like hurricanes, tsunamis, and volcanic eruptions can shift the climate; yet, what is most contested by people is their *own* impact. Many of our daily tasks require the use of coal, oil and gas (NASA, 2014), which all emit gasses like carbon dioxide, methane, nitrous oxide, and sulfur dioxide, into our air. The gasses, in turn, act as a solar blanket or greenhouse and ultimately raise the average global temperature.

In 2019, The Washington Post and the Kaiser Family Foundation (KFF), an American non-profit organization focused on health care issues and global health policy, conducted a national poll of 2,293 adults and 629 teenagers. Together, they found that 20 percent of "naysayers" argued that the climate "began warming before humans came along" with another 15 percent saying "humans have no control or play only a small part in the phenomenon" (Guskin et al., 2019). Almost ten years prior in 2010, the Yale Project on Climate Change Communication produced a study on "American's Knowledge of Climate Change." Principle Investigators Anthony Leiserowitz and Nicholas Smith, Ph.D.s in Yale University's School of Forestry and Environmental Studies, and Jennifer Marlon, Ph.D. in the University of Wisconsin-Madison's Department of Geography, surveyed 2,020 American adults and found that "a third of Americans (33 percent) incorrectly believe that since the Earth's climate has changed naturally in the past, humans are not the cause of global warming today" (p. 10). While a large percentage

disagree with the causes, disputing their own influence in the Earth's climate change, 63 percent of Americans did believe global warming, the long term warming of the planet, was occurring (Leiserowitz et al., 2010, p. 3).

While it can be challenging to see and even feel these changes, climate change if not corrected will impact daily life, if not now in the Midwest, then most certainly for future generations. As the earth's temperature continues rising, more snow and ice will melt, increasing the ocean water levels. Ultimately, climate change will affect our agriculture and global food security. Higher temperatures will reduce crop yields, by encouraging, as Dr. Rothwell and Steve have seen, an increase in weeds, pest invasions, and crop diseases.

The Fight Against Crop Failures

In response to combating changes in the environment and climate, farmers across the country have had to adapt their growing methods, practices, and ultimately, adjust to stricter regulations set forth by local governments as well as the Environmental Protection Agency; however, some of these changes have not been to the liking of farmers or consumers. Across the world, there is the challenge of providing enough food for all people to consume. As our population grows, the need to feed everyone falls back onto the farmer. The challenge, though, is met with greater adversities of not just achieving the necessary quantity of food, but also the expected quality.

We Don't Like It Either: Chemicals, Pesticides, Fertilizers, Oh My!

Throughout my entire childhood, my family has raised a garden. Though it's small, my parents, my sister and I on average grow ten to fifteen tomato plants (my mom makes the best homemade spaghetti sauce), multiple plantings of green beans, various herbs, strawberries,

rhubarb, and occasionally lettuce, zucchini, and carrots. Each summer, it would be my and McKenzie's job to weed the garden once the morning summer dew dried, pick any harvestable vegetables, and then generously water the plants. There was something rewarding in producing our own food, fresh, and chemical-free; however, producing such organic produce is not necessarily possible on a large farm.

Historically, Grant's Farm, like most family farms in the past, had not used chemicals at all.

"If there was a worm in the potatoes, so what, they cut it out," Steve shrugged. "You went and hoed them [crops] and you got what you got. But they were selling locally," he mentioned.

As the farm expanded in size and production, and with that, their entrance into global markets, regulations from the Michigan local government and Environmental Protection Agency (EPA) became stricter. In 1996, the Food Quality Protection Act (FQPA) was passed unanimously by Congress and signed into law by then-President Bill Clinton (EPA, n.d.). The FQPA fundamentally altered former policies and regulations of pesticides used in the United States. The law reassessed at the time over 9,000 pesticides which the EPA either revoked or modified almost 4,000 (EPA, n.d.), setting new guidelines for testing new and old products before approving usage. The EPA establishes a maximum legal residue limit for crops, how often it can be applied, and where it can safely be used. Steve told me that Michigan farms are required to submit a spray record to the EPA, the agriculture department with the state of Michigan, and their processors, ensuring that fruit farmers did in fact spray, and sprayed the correct amount and times.

In many cases, farms like the Grant's must have buffer zones (typically a thick, tall tree line) that prevent the spray from spreading from the designated farmland to neighboring communities, homes, and waterways. Especially in Michigan, where many of the Michigan fruit farms are within proximity to Lakes and waterfront properties, buffer zones are incredibly important for keeping the water clean. Chapter 14 of the Michigan Environmental Protection Act (MEPA) prohibits agencies, private and public, from performing practices that are harmful to the "air, water, or other natural resources, or the public trust in these resources" (Haynes, n.d.). Ironically though, Steve mentioned that it is usually not the farms that are contaminating the lakes, as most lakefront property is not used as farmland. Steve's great-grandfather even sold off their acreage of lakefront property on Lake Leelanau, deeming it "unnecessary." Instead, owners of premium lakefront property are free to spray their yards with weed killers and chemicals without regulation from the EPA.

Regardless of government control and strict regulation, Steve argues that he, and countless farmers across the nation, do not have a choice of whether they want to spray chemicals or not on their produce. Unfortunately, bugs and disease are the ones to blame for this in addition to policy and regulations. Spotted Wing Drosophila (*Drosophila suzukii*) (SWD). Leaf Spot. Cherry Fruit Fly. Fungal diseases. The list goes on and as it increases, so too does Steve's list of chemicals to purchase and his subsequent bills. Most recently, the Spotted Wing Drosophila fly has wreaked havoc on Michigan cherry trees, though they are not the first, nor the last of the insects, native or invasive, that will challenge the cherry industry.

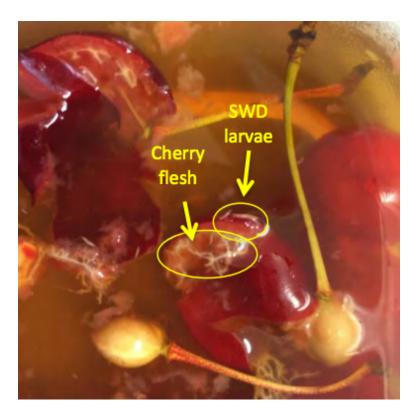


Figure 4.2. Tart cherries in a brown sugar solution used to lure SWD. The picture revealed the damaged cherry as well as the SWD larvae. (Wilson et al., 2017)

Steve argues that ten years ago, the cost of his chemicals was around \$15,000 a year; now, however, he says they spend roughly \$35,000 to obtain all the necessary chemicals for their operation – \$50,000 if you include the cost of fertilizer. The cost of chemicals is highly dependent on their strength. The Grants don't spray the same chemicals every year. They instead rotate between their roughly twenty chemicals annually, ensuring that they are not over spraying, and thus, destroying both the environment and themselves.

What is challenging with pesticides and other agricultural chemicals is that while farmers are required to use the products if they want to produce at a global level, as Steve's family does, health officials and environmentalists have studied the harmful effects of such products. Studies like that of Nicolopoulous-Stamati et al. argue that chemical pesticides increased the health risks

to both the environment and workers' health. In their article "Chemical Pesticides and Human Health: The Urgent Need for a New Concept in Agriculture," Nicolopoulous-Stamati et al. argue that chemical pesticides have created numerous negative health effects like "dermatological, gastrointestinal, neurological, carcinogenic, respiratory, reproductive, and endocrine effects," citing that "high occupational, accidental, or intentional exposure to pesticides can result in hospitalization and death" (Nicolopoulous-Stamati et al., 2016). This should not come as a surprise as thousands of cases against chemical spray companies have littered the news. In 2016, Dewayne "Lee" Johnson sued Monsanto Roundup (bought by Bayer AG) for health issues related to his use of their product. The court found that Monsanto Roundup, the glyphosate-based herbicide, was the cause of Johnson's non-Hodgkin's lymphoma (Gilliam, 2019).

Though the human health effects of chemical usage, especially in the agricultural industry, are becoming clearer to society, the long-term effects of chemical spray on our environment is still undetermined. Chemical usage has a bad reputation and not without reason; yet, the challenge of food production is more complicated than a simple label of blame. We fight a number of issues – food shortage, disease, infestation, climate change, and chemical usage – that seem to negate one another, making the possibility for a solution much more complicated. Dr. Rothwell is proud that most Michigan cherry farmers, like the Grants, are extremely interested in letting MSU and the NWMHRC utilize their farm for research, with the hope of finding solutions to both tackle the issue of disease and infestation while reducing the use of chemical inputs.

"I've never been told 'no' for any research project in 15 years," Dr. Rothwell told me. "We'll do some crazy stuff on growers' farms and no one ever says 'no.' People [farmers] are really committed to research. They're committed to learning."

Dr. Rothwell argued that while farmers have the reputation of being stubborn, which she did not necessarily disagree with, she believes that Michigan farmers are dedicated to helping her and her colleagues find solutions. She, and they, don't believe spraying is the only answer.

"Some of my longer-term strategies are to find more holistic management methodologies or strategies to control SWD because we're not going to spray ourselves out of this situation," Dr. Rothwell admitted. She shook her head, speaking frankly. "That's my goal, finding more holistic strategies."

Dr. Rothwell said that her studies have proven successful. She described how pruning the cherry tree branches to open up canopies results in exposing the SWD flies to low humidity and high temperature, which they do not tolerate well. It minimized infestation, she reported, by 40 percent without the use of insecticides. Dr. Rothwell and her team are close to developing integrated pest management that would clarify to society that farmers do not spray every day or even on a calendar (a specific, predetermined set of days or weeks of a month). Rather, she stated, they ensure that farmers are only spraying when there are specific triggers that suggest a threat to an entire crop, resulting in potentially devastating losses. Dr. Rothwell is so dedicated to this mission of pest management that MSUHort are in the process of developing a model that catalogs all possible insect and disease threats, shares the latest weather data (e.g., rainfall, temperature, wind direction and speed, and more) in the areas of the state that are specific to the farmer researching their farm, and allows them to submit specific dates. What they receive after submitting their information is a report that calculates the specific pest's progress towards infestation.

The model's progress and accuracy are still being developed, Dr. Rothwell told me; however, she did mention that the research center is also developing a model based on crop

phenology, a branch of science that deals with the relations between climate and periodic biological phenomena, so as to determine when a crop is most susceptible to SWD, among other diseases. Such technology could be shared among other growers – corn, soybeans, apples, grain, and more. Reducing the amount of chemicals a farmer is spraying across multiple industries would surely improve the environment, if not, neighboring animals, plants, and benevolent insects.

Though the Michigan cherry farmers cannot stop spraying completely, Dr. Rothwell stated that they do spray responsibly. Farmers will avoid potentially risking their neighbors and themselves by spraying in the middle of the night. She mentioned, though, that this courtesy is not always reciprocated by Michigan tourists and residents.

"They call us, 'Someone's spraying. It's so loud. It's two am. Why are they spraying at two am?" Dr. Rothwell reiterated, sharing some of the more comical phone calls she has received during her time at the research center. "They're spaying at two am because wind speeds are down and pesticide loss is minimal! 'Can I hang my laundry outside – I get that one a lot," she laughed.

Despite what people may think, farmers hate spraying just as much as neighboring residents hate the smell, sound, and potential effects. Steve was frustrated when we spoke about chemicals. Spraying chemicals, pesticides, herbicides, and insecticides was not something he enjoyed doing, nor wanted to do on their farm.

"Do you think if I wanted to spray chemicals that cost \$150 an acre that I would do it just to do it? No," Steve said, heated. "I do it 'cause you [government and processors] won't buy my fruit with a worm in it. That's pure and simple. If you would buy my fruit with a worm in it, I would not have to spray. You shouldn't have to spray to keep the worm out, but you do!"

Steve shook his head. Becky nodded in agreement.



Figure 4.3. Picture of an insecticide sprayer. (Wilson et. al., 2017)

"I don't want to spend money on spray dope. I *hate* spraying. I *hate* getting up, going out there and doing it," Steve stated. "Everything about it I *hate*. But I have to do it. We have zero tolerance. If they [EPA, Michigan inspectors, and processors] found one worm in one of my tanks, boom, you're done with that orchard."

Steve was serious. I could tell that this was a frustrating topic to talk about, as it was yet another obstacle their farm couldn't get around. To ensure the safety of his neighbors, Steve spoke with them to establish a time that worked within their schedules to spray when they were away. Their neighbor, a nurse, worked night shifts, allowing the Grants to spray in the middle of the night when she was not home. While their neighbors were understanding, Steve and Becky do not believe that all visitors understand how frightening spraying is for their family; tourists tend to only think about how it will impact their health and home. The Grants take spraying

safety seriously. The children are prohibited from helping, and protective gear is a must for whoever is in charge of spraying that day. Although they must continue to spray their cherries, Steve believes it is better than attempting to grow organically.

"Go talk to an organic farmer," Steve told me, "and you tell me why you would want to be an organic farmer."

Steve could not help but think about what happened to his friend. After raising potatoes for years, Steve's friend was asked to raise organic potatoes. So he did.

"He just planted the potatoes, like you know, you just plant potatoes, just raise them, right?" Steve said. "So he picked them come fall. Nobody bought the organic potatoes. So why not? Well, they got spots on them. They got bruises in them. They got whatever, so he gave up."

What Are The Options?: Assessing Different Methods of Agricultural Production

While Steve wishes he could operate without the use of chemicals, spray, and other insecticides, other farming methods like the growth of Genetically Modified Organisms (GMO) or switching to organic production are often financially unattainable for smaller farms. It is not simply a matter of choosing one method of production over the other, which can be challenging when attempting to find a method of production that not only works across industries, but also takes into consideration the environmental impact it could have. The debate on *how* we produce our food has extended beyond the question of "which method will help us feed the population?," and instead towards "how can we mass produce food in an environmentally, economically, and socially ethical and conscious way?" The debate, though, often ends in a battle between choosing GMOs and organic practices.

Society has always desired fresh, healthy produce, but when industrial agriculture continued to dominate America's food supply, society believed there needed to be distinctions in

their food that clearly indicated the farm's standards of production; thus, around the early 1990s, the craze for "organic" became popular. Just the sound of "organic" screams healthy and pure – the best nourishment we could possibly give our bodies. I cannot say that I disagree. I, like most people, want to know that my food has not been tampered with, that I am not ingesting potentially harmful chemicals into my body, that the produce I eat has not permanently damaged the Earth it grew on. After speaking with Steve, though, I realized that the debate between organic and genetically modified organisms (GMO) is more complex for a small, family farmer. Growing, purchasing, and consuming organic foods and goods is something of a craze today. People are drawn towards the idea and practices aligned with organic production. Organic farms given the stamp of approval by the USDA do not utilize synthetic ingredient based pesticides or fertilizers, bioengineering, or any other form of growth hormones. Only foods proven to have been grown and processed through the strict set of regulations, including pest-control methods like crop rotation or eggshells as natural deterrents are given the esteemed seal of "organic." In the 1990 Farm Bill, officials established the Organic Food Production Act (OFPA) that would set the standards for the production and handling of organic food (USDA, 2007), and thus, created the distinction that consumers had demanded. But the demand was often out of the question, both practically and financially for small, family farmers like the Grants.

It seems illogical when you first look at it. Food with the label "organic" is more expensive than the conventional food sold in your local grocery store or market. Even Steve admitted that organic cherry producers in Michigan make around \$0.80 per pound, close to what he makes on his maraschino cherries. Compared to the \$0.08 per pound tart cherry producers are making, the idea of switching to organic production methods can be enticing. Organic producers are often rewarded and glorified for their ability to produce food in environmentally friendly

ways. And do not misunderstand me, they should be highlighted for their ability to find alternative methods of production that consider the health of our earth, as we have seen that its mistreatment has long-term negative effects; yet, simply because the profits are higher and the environmental impact is lower does not necessarily mean every farmer can or should change their operations to organic growth.

As outlined by the Food and Agriculture Organization of the United Nations (FAO), growing organic food is extremely expensive, typically yielding a greater price in the market because the supply of such foods are limited (FAO, 2020).⁵ For farmers like Steve, the quantity of cherries picked affects the amount of money he receives in return.

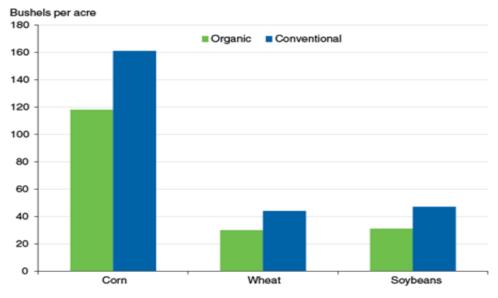
"They're [organic farmers] getting \$0.80 a pound for organic but they *need* \$0.80," Steve told me. He continued to reason why organic farmers required a higher price. "One, their trees are dying because they didn't keep the grass away from them, and their cherries – my cherries is, let's say, a 22 millimeter [size of cherry]... their cherries are, what, 10 millimeter. Right there you got half the cherry. They need double the pounds, double the price just to make it."

In order to continue his business, as he demonstrated earlier, he must make more money in the selling of his produce than he spent growing and maintaining his farm. While Steve argues organic cherry producers have struggled to produce a substantial yield, they are not the only ones. Across other industries like corn, soybeans, and grain, conventional farming and GMO farming practices have been found to produce larger yields. In 2011, organic food production had a lower yield than conventional food production (Figure 4.4).

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⁵ That is not to say, however, that organic production could not sustain the increasing global population and rising concern for food security; in fact, the FAO argues that the world produces enough food to feed our population. The greater problem is accessibility. Producers cannot easily distribute food to people who need it most, nor can they obtain the necessary land acreage in highly market-marginalized areas (FAO, 2020).

Organic field crops yield less than conventional crops



Source: USDA, Economic Research Service calculations from USDA, National Agricultural Statistics Service's 2011 Certified Organic Production Survey and Crop Production 2011 Summary.

Figure 4.4. Organic vs. conventional crop yields. (McBride & Greene, 2015)

While the price of organic food is higher in the market, that does not mean that the costs of production are lower. In fact, raising organic crops demands more labor, and, yes, more spray. Many organic farms rely on having a diverse range of crops and crop rotation in order to maintain the necessary nutrients and fertility in their soil; yet, they can also, within regulation, utilize natural and some synthetic sprays. The USDA utilizes specific criteria that outlines which substances, methods, and ingredients are either allowed or prohibited from organic farms. The lists for both approved synthetic and non-synthetic substances are lengthy. Farmers can use alcohols, ethanol, chlorine materials for pre-harvest use, chlorine dioxide, ammonium carbonate for insect traps ("no direct contact with crop or soil"), lime and elemental sulfurs – and that's just part of the approved substances for organic production (USDA, Electronic Code of Federal

Regulations, n.d.).⁶ Organic farming's use of non-chemical means of pest and weed control is good for our earth; however, it does not always mean they're effective. Since the sprays organic farmers use lack the immediate potency of the chemical-based sprays most farmers use, they are required to spray more frequently in order to keep their crops healthy and weed-free compared to farmers like Steve who use chemical-sprays only spray once or twice per season as regulated and suggested by the NWMHRC.

"They're spraying more than I'm spraying!" Steve exclaimed. "I mean, okay, maybe you're [organic farmers] healthier. The chemicals are natural," Steve agreed.

Despite acknowledging both the health and environmental benefits to organic farming, Steve did not know anyone that was still working on a global market scale that was 100 percent organic. Without the help of synthetic fertilizers, pesticides, or spray to keep weeds and insect and fungal infestations away, and retain nutrients, organic farming demands more time and sets of hands to ensure the quality of the organic crop or livestock is healthy and viable. In Luanne Lohr and Timothy Park's 2009 article "Labor Pains: Valuing Seasonal versus Year-Round Labor on Organic Farms" Pimentel et al. (2005) reported that "organic systems require on average 15% more labor than conventional systems" (p. 316). The cost of year-round – even seasonal – labor is often too expensive for small, family farmers like Steve who relies solely on his children and extended family to help harvest each season.

While organic farming, to Steve, is feasible for local production and markets, he does not see it becoming the standard anytime soon. Yet, he does not see GMO farming becoming the

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⁶ To see the full list of approved and prohibited substances for organic farming, you can visit: https://www.ecfr.gov/cgi-bin/text-

standard either. As we've seen in multiple farming industries, just as organic farming gained popularity quickly, so too did GMO biotechnology.

GMOs are organisms that have had their DNA altered or modified in some way through genetic engineering for various purposes, including resistance to insects and bacterial diseases that often devastate crop yields. With resistance to certain diseases and insects, GMOs attempted to provide a potential solution for reducing the number and amounts of chemical sprays, pesticides, fertilizers, and other insecticides that are used on farms. GM science and testing became largely popular in the 1980s when Monsanto Corporation began experimenting with gene mutation in plants with the goal of tackling the global food production challenge by increasing plant yields. Naturally, people were, and continue to be, skeptical of the *unnatural* process of genetic engineering. And they are not necessarily without reason. GMOs would not win a popularity contest. In fact, GMOs would potentially split the vote straight down the middle for desirable traits. As a middle schooler, I remember seeing photos like Figure 4.5 plastered everywhere – the lunchroom, websites, in grocery stores. I was not even quite sure what GM crops were, but the pictures alone told me everything I thought I needed to know. Even if you hate tomatoes, the bright red one to the left looks *much* more appetizing than the dull, sicklylooking one to the right.



Figure 4.5. Comparison (accuracy unclear) of what an organic tomato looks like compared to a genetically-modified tomato, entitled "New Killer Tomato." (Organic Consumers Association, n.d.).

Despite the conflict surrounding the ethics of GMO engineering and farming, many growers have been drawn to the durability of a GMO seed. The cutting edge technology helps produce higher yields of crops seasonally. For crops whose properties are utilized by multiple industries – constantly in demand – like corn, soybeans, wheat, and grain, GMO has created a sense of security, ensuring their production despite the challenges of unpredictable weather and infestations. It's become so popular in such industries that soybeans and corn, especially, are dominated by four big seed companies in the United States: Monsanto (now owned by Bayer AG), DuPont, Syngenta and Dow. According to the Center for Food Safety, 92 percent of corn and 94 percent of soybeans are genetically engineered in the United States; it is estimated that approximately 75 percent of processed foods line our grocery shelves today (USDA, 2019).

GM foods have gained the attention of farmers hoping to produce high, nutrient filled yields of crops without spending thousands of dollars on insecticides, and the consumer who needs cheap produce. Making the transition to a GM production, however, has its own set of

challenges for the small farmer. With advanced technology, like bioengineering, comes a big price tag. Genetically enhanced and modified seeds cost more than the average seed. Because of the technology and research put into the development of GMO farming, GM companies are notorious for their lawsuits against contracted farmers who violate their seed agreements.

In 2013, an Indiana soybean farmer, Vernon Hugh Bowman, was sued by Monsanto for stealing their seed technology after he bought ordinary soybeans from a local grain elevator where farmers who cannot afford the cost of another Monsanto seed can buy some cheaper (Charles, 2013). Bowman was a loyal buyer of Monsanto seeds and knew the rules when it came to how to properly and legally use their products. Monsanto states that while farmers are not allowed to replant the seeds they harvest, they can sell it off to a local elevator and use it as feed; Bowman, however, replanted seeds bought from the elevator, not his own from that year's harvest (Charles, 2013), which Monsanto had claimed was an infringement on their seed patent. Bowman lost the case by unanimous vote in the Supreme Court. Bowman was not the first, nor the last to face legal action from his own seed supplier. In a two year study conducted by the Center for Food Safety, "Monsanto Vs. U.S. Farmers", researchers found that between 2003-2005, 90 lawsuits against farmers and small businesses and farming operations were filed for patent violations. Lawyers for Monsanto argued, as they did in Bowman's case, that violation of their contract not only was theft of their biotechnology but also put people at risk of the potential for the accidental creation of an entirely new crop due to Monsanto's inability to regulate the seeds in the mill (Charles, 2013).

For the average small, family farmer, the cost of a lawyer and challenging a multimillion dollar corporation like Monsanto would be equivalent to signing a death wish, as the financial burden would likely destroy the farmer and their business no matter the ruling. In Bowman's

case, he was sued for \$85,000, not including the legal fees he may have had to pay (Charles, 2013). Why so much for a seed though, right? It's not the seed, however, that corporations are worried about but rather the theft of technology. Legal disputes have become so common with GMO corporations that law firms have established pro bono work for farmers while others have created guides to handling GMO production and the companies themselves. In 2004, David Moeller, with Farmers' Legal Action Group, Inc. (FLAG), and Michael Sligh, with Rural Advancement Foundation International - USA (RAFI-USA), created "Farmers' Guide to GMOs" to help struggling GMO partnered farmers.

Where Does The Yellow Brick Road Lead?

So, GMO, organic, chemical protection – where can the small, family farmer go from here? What solutions are there that protect them from the challenges of ensuring substantial crop yields, avoiding disease and pests, yet farming using ethical and environmentally conscious practices? After analyzing so many dynamic variables – pollution levels, water use, climate change, financial restrictions, supply and demand, population growth – it can feel like an impossible task to find a solution that works for our agricultural system. It is clear, however, that there is not necessarily one answer, nor can we say if there is one that will support *all* American farmers.

As the needs of feeding the population at an affordable price top the list of politicians, bioengineers, farmers, and environmentalists alike, people are funding research towards sustainable agricultural practices, ones that value environmental health, economic profitability, and social and economic equity alike. While in popular culture, the debate between food production and environmental consciousness can seem like it is narrowed down to a dispute between GMO and organic, big corporation or little farm, the idea of sustainable farming as the

American standard for all farming practices is gaining traction and support from environmentalists, farmers, and some politicians.

But what is the difference between normal farming practices and sustainable growth? Sustainable farming focuses on the long-term production of crops and livestock with the goal of minimally affecting our environment. Sustainable agriculture requires a bit of innovation from the farmer. According to UC-Davis' Agricultural Sustainability Institute Research and Education Program, farmers transitioning to sustainable practices must take into account "topography, soil characteristics, climate, pests, local availability of inputs and the individual grower's goals" (Feenstra et al., 2020). Rather than produce one crop, sustainable farming practices argue that farms should produce a range of crops that are acclimated to the local conditions. Diversity of both crops and livestock on a farm allow for healthier soil quality, but still require conscientious management of water use, chemical sprays, and energy input. While researchers like those as UC-Davis regard sustainable agriculture as the optimum long-term production method in the U.S., the transition for many farmers would be a long, difficult learning curve. For farmers like Steve who have spent their life working predominantly with only two or three different types of crops, to suddenly have to raise livestock or ensure multiple crops are rotated yearly would be a demanding task, though not impossible.

While the debate for the "perfect" agricultural production practices remains undefined and largely contested, understanding the restrictions a small, family farmer faces *today* in their methods and practices is essential to understanding the farmer and their plight. Too often, society is quick to assign blame and label industries, communities, and individuals alike as the source of

our problems. And that's not to say farmers do not have some part in the changing of our environment and climate or increase in harmful chemicals; however, they are humans managing challenges that, as we have seen, are sometimes beyond their control and immediate authority. For the 90 percent of small, family farmers across the United States today, the future is highly uncertain, yet it is clear that most are committed, like Steve, towards finding solutions by working with researchers like Dr. Rothwell, scientists, environmentalists, and politicians. The small, family farmer is doing the best they can, getting by, going into debt to ensure that they produce quality food for our country while protecting their own families.

CHAPTER 5

Contrarians: Cultivating the Innovative Farmer

While the solution for sustainable farming practices and production is unclear, hope for the preservation of the small, family farmer is far from gone. Having farmed for almost four generations, Steve has no plans of selling the farm land, stopping the business, or giving up his dream of passing it on to one of his children, just as he knows John, his cousin and co-operator of Grant Farms will be expected to do as well. The odds, however, are stacked against them as we have seen. It seems no matter which way the family farmer turns, debilitating obstacles lie ahead. Steve recognizes this, acutely aware of the dynamic forces conspiring to end his family's century long history of farming in Michigan. He sees it, and challenges it back.

At the end of our first day of interviews, about five hours later, I asked Steve to tell me what he attributed the success of his farm to, in spite of all other family operated farms not entirely different from his, who had lost their business.

"The success to my farm is, one, family," he told me, raising his hands as if to say "duh, Haley." "And then to be innovative and adaptive," Steve said.

I was expecting a different answer than what Steve had told me – maintaining tradition, conscious saving and spending of finances, having the land already paid off. Steve looked at me from across the table. He looked adamant with his answer.

"To be able to change when we have to. This is our passion. Becky, me and John. It's going to be hard," he admitted, "don't get me wrong. There are days when it's hard 'cause it's like, you know, we want to do this but we can't do this because you didn't get enough money for

this last year. So what makes us [strong], maybe right now, is the fact that we're willing to change. We're willing to do whatever it takes."

The two halves of the farmer's identity – the figurehead of tradition and risk – seemed to converge here. Weren't farmers stubborn? Aren't they averse to changes? Skeptical of modernity and technology? Wasn't innovation for the corporate guys?

"We're contrarians," Steve said proudly. "Dad always said we're contrarians – we're different. We think different and that's good for us."

Steve had a thin-lipped smile across his face, his fingers intertwined on the table.

Contrarians: those who oppose or wholeheartedly reject popular opinion, who go against common practices. Over the course of my week interviewing Steve and the following weeks in Michigan, it became clear to me just how innovative the Grant family is. It was perhaps another major reason as to why they have maintained their family's business and grown to be the largest maraschino cherry producers in northern Michigan.

The changes the Grants have made are not so extreme that other small, family farms could not adopt some of their methods and ways. Of course, the Grants made a wise decision as a family years ago to switch their cherry production to briners, which as we have seen, has paid off and helped them avoid the loss tart producers are facing; however, the way they cultivate, harvest, shake their trees, and care for their crops has drastically changed throughout the years.

Steve and his family make their own mechanical alterations to their shakers. Cherry shakers may sound pleasant, the image of a machine gently rocking a tree back and forth until the fruit falls from its branch gracefully onto the net below, but in actuality, shakers are violent. As Steve described to me, cherry shakers are not just trying to help your cherries fall, they are also jerking the tree, digging into the base and essentially forcing them off the branch. A

standard cherry shaker, however, didn't do the job for Steve, especially when preserving the stem is essential to his market. Buying a new shaker for Steve, like most family cherry farmers, is out of the question, considering the average costs of shakers – new and used – can be anywhere from \$40,000 to over \$100,000.

So Steve built his own.

It was not without trial and error though, something he looks back at and laughs.

"We built one like, whoa, that one destroyed my tree," he laughed, reimagining his failed attempt after months of reengineering his shakers to be more effective.

Steve has saved the farm thousands of dollars by serving as the family's engineer, just like his father before him. Rather than buy a new shaker head (the part of the shaker machine that actually grasps the tree and shakes it) for \$23,000 from a friend, he built his own for only \$1,000. And he did not stop there. Steve decided that the whole machine could use fixing in order to be more effective – all three of his shakers, for that matter. He redesigned the tarp to catch more cherries; changed the conveyor belt system so that he would not lose the picked cherries because of overflow; modified his tractor so that he could plant cherry trees along the steep Michigan hills.



Figure 5.1. A standard cherry shaker. As you can see, the belt leads from the tree, across the belt and makes a 90 degree angle up towards bins of water. (Louis Gelder & Sons Co., 2015)



Figure 5.2. Steve's shaker. The tarp fits right to the tree root. The cherries fall onto the belt below and go directly over to the water bin, no 90 degree angles. Photos courtesy of the Grants.

All winter, Steve works in his barn, fixing old equipment for the upcoming season and making new, innovative changes to increase the effectiveness of his machines in order to harvest more cherries. Despite the ingenuity and success of his inventions – his "mechanical genius," I called it though he was quick to dismiss the praise – Steve refuses to patent them.

"They're custom-built, there isn't any one like it [shakers] in the world," Steve told me. Over the years, shaker companies have looked at Steve's machinery. The Grants are always happy to share their inventions. "'Well you gotta patent them!' and we're like, 'why?' Steve said, as if the answer was obvious. I guess I was not the only one to question why they hadn't patented their shakers. "If somebody built it, we'd be great! We'd be happy that, at least we built something that's – where somebody thought that they could actually produce this and make it available for other people."

Most Michigan cherry farmers, however, have been reluctant to adopt Steve's style of equipment, despite its effectiveness. While Steve's machines are slow, dependent on obtaining quality cherries, other farmers who only have four weeks to harvest, feel the pressure to shake their trees, and do it quickly. Despite the lack of interest from fellow farmers, Steve is not the only one attempting to create a better shaker. Most recently, equipment researcher are inventing a shaker that drives *over* the row of cherry trees. While the technology has mainly been tested on berries like blueberries, the MSU Extension believes it could be a viable solution for the future of the cherry industry. In 2015, the NWMHRC hosted a viewing event for cherry farmers to observe a research trial using a Littau ORXL berry harvester (MSU Extension, 2015).



Figure 5.3. Berry harvester in action harvesting high-density tart cherries. (MSU Extension, 2015)

Although cutting edge technology is typically reserved for corporate farms with the financial capacities to trial such expensive and advanced tools, the push for greater technology across all farms is growing. Yet, to Steve, waiting for the product to come to you is not a game he wants to play, nor a chance he wants to take. By building as well as repairing his own equipment, Steve saves money that is instead allocated towards products he cannot find alternatives to (example: chemical sprays). Though not all farmers are engineers like Steve and his father, he does believe that buying used parts, old machines, and finding mechanics who are willing to help for a lower cost are worth the money, rather than spending hundreds of thousands of dollars on brand new equipment.

Steve has saved money in other areas of the farm that have required risk and adaptation. In fact, he took the largest risk by completely changing the cherry tree itself. Steve prunes his cherry trees into the shape of Christmas trees to increase sun exposure, reduce humidity, and to avoid creating the cool climate within the tree that SWD and other diseases enjoy. Steve and

John replant five percent of their trees each season, replacing older trees that can no longer be effectively shaken. It will take five two years before the cherry trees produce adequate fruit for harvest. Older trees are also pulled so that soil can be replenished by planting and tilling in successive crops of rye grass. The changes Steve and John have made to the farm have saved them money, allowing them to spend in areas they otherwise would not be able to afford. Changes have extended to the family as well.

As their farm has adapted, so too have the members of the Grant family. Everyone has a role to play. While farmers need innovation on their farms, in recent years, it has become essential for the farmer to expand their skill set in order to remain competitive. They cannot simply just be "the farmer." Dr. Rothwell spoke of the leadership programs that the NWMHRC offered for farmers.

"We put on a young farmer leadership program," Dr. Rothwell explained. "We had 44 people in the program and it was really exciting. We did things like how to talk to the media, we did all these types of things to help build leadership capacity for people to take over the next generation."

Dr. Rothwell and Steve both mentioned that every farmer knows how to perform basic farming tasks – pruning, spraying, running tractors – yet, they did not know how to speak in public, sit on a board that represents agriculture, interpret policy. It is not enough anymore for a farmer to only engage in their own work and immediate surroundings. For the future of small, family farmers, they must assume new responsibilities and roles that – for some – force them to interact with community members, lawyers, politicians, and media representatives. They must become jacks of all trades in order to expand their businesses. Especially for younger generations who will one day take over the farm, it is essential to understand how to market your farm,

family, and mission, how to advertise your product, and gain traction with consumers just as Cherry Republic has done throughout the years. For many farmers, this is no easy task. Dr. Rothwell mentioned that many farmers are less likely to adapt especially when it comes to managing technology, social media, and new platforms of communication.

"You know before [smart phones] it'd be like, 'Oh, Paul, I sent you an email.' And he's like, 'Oh, my grandkids will be over next week. They'll look it up for me.' And I'm sorry," Dr. Rothwell said, "we just don't send out paper newsletters anymore. But there are some guys that just haven't kept up because they just couldn't keep up with technology. There's gonna be a lot of older guys that are phasing out because they just can't keep up with the rigors, the pressures."

Participating in programs like the one NWMHRC provides has grown across the United States. Often, local Farm Bureaus offer educational programs and sessions that are geared towards building the leadership capabilities of young farmers, helping them to tackle the challenges of the 21st century in addition to the multifaceted challenges they are already facing on their farms. Their ability to collaborate across industries will ultimately help farmers in the future better advocate not only for their industry but also for small, family farmers struggling across the nation. Ikerd (2008) believes the emergence of the new farmer is essential towards sustaining family farms. He argues that the new farmer is diverse, "recogniz[ing] the importance of relationships, of family and community as well as income;" they rely not on the monopolization and specialization of production like that of corporate farms but rather on the "advantages of diversity, individuality, and interdependent relationships" (pp. 41-42). Just as we must understand the challenges farmers are facing so too must family farmers adapt their practices in order to seek methods of sustainability.

Although farmers will need to take on new responsibilities, pushing beyond their typically reserved level of comfort in order to preserve their farming operations, it is undeniable that support from government officials would be the biggest contribution towards the survival of small, family farmers. Without a voice in politics, the challenges of a small, family farmer are relatively unknown and overshadowed. The skills young farmers are learning now will prepare them to extend their influence beyond the farm, to share their stories of generations of hardships, and encourage more farmers to become contrarians as well.

CONCLUSION

What Lies Ahead: The Great Extinction or The Comeback Story?
The Future of Small, Family Farmers

The small family farmer is facing innumerable challenges in our society today, ones that are not simply hurting their businesses but rather wiping them completely off the map. What's more painful, perhaps, is that many of these obstacles – healthcare, seed and equipment insurance, trade wars and global market competition, environmental changes, and federal regulations – are beyond the immediate control of the farmer themselves. For small family farmers, combating such issues feels impossible, looming over their heads and, often, their bank accounts. Regardless of industry, whether they are a rural corn grower, a small family dairy farmer, or a maraschino cherry farmer like Steve, our American farmers are struggling; yet, when they struggle, so too does our economy and food supply as a nation, our rural communities, and local businesses. It is not just the family farmer who fails, but also elements of society.

Steve is not alone in his fight against the use of chemical spray and finding safer alternatives both for his family's health and the environment; he is not alone in his struggle to keep up with the rising cost of health insurance, crop insurance, and equipment insurance; nor is he alone in his vow to adhere to federal and local agricultural regulations. It is becoming almost impossible for the family farm to keep pace with the big corporations dominating our food production and effectively driving the small farmer out of our history as we know it.

The small, family farmer is stubborn, as we've uncovered; however, what was once considered a fatal flaw, is now saving many of those smaller farms. It is not their stubbornness to fight change or lose tradition, but rather their stubbornness to not give up. Just as Steve told me, more farmers are looking towards innovation and resourcefulness – whether it be calling up their

local mechanic to fix a broken tractor or growing their own crop nursery to save money on seeds — to keep the farm running. While the fate of the small farmer lies heavily in the hands of our government officials and politicians, the small farmer is learning to adapt. They are adapting to not only run a more efficient farming operation but also gaining the necessary skills towards becoming a persuasive advocate for their respective industries. Businesses like local Farm Bureaus, universities like MSU and the NWMHRC, among other agricultural programs, organizations, and research centers are joining together in offering resources to transform the farmer into a jack of all trades — a businessman, PR, marketing, and advertising specialist, master negotiator, and in some cases, political activist and lobbyist. And a farmer, of course.

At the end of the day, the small family farmer does not exist because they are too stubborn to let go of their operations, as some may think they should do. The small farmer is here because they are dedicated to their passion.

"I love growing cherries," Steve told me, smiling. "That's what I love to do. And whatever it's going to take for me to be a farm and grow cherries, that's what I'm going to do." He paused and glanced at the photos of his children along the wall, peering out at his farmland across the road. "We do it because we love to do it. We do it for our kids."

Steve was not a farmer for money. He was not here for lasting fame or legacy. He was not working long, hot summer days for competition. Steve did not farm because he had to, but rather because it was more than simply a career. Everything he and his family have put into their farm is fostered from a deep passion for the work they do. It is for family.

The small, family farmer is not like just any farmer in America. They are not expendable or replaceable, for not just anyone can become a farmer and expect to match their level of pride

and dedication for their land. It is one thing to learn how to farm; it is an entirely different thing to truly appreciate farming.

The future of small, family-operated farms is uncertain. Recent trends suggest that our society leans towards the adoption of large, corporate farms as our new standard for modern farming, forcing the family farmer out of our culture. To solely accept industrial agriculture as what is best for our society, however, would be remiss of the small, family farmer and their perseverance, working twice as hard to not only build our food supply, but also our nation. To understand the challenges that family farmers are faced with today is to understand the farmer as a person. Far too often we disassociate the individual from the finished product before us. We assume a label indicates the practices, intentions, and integrity of a person without truly understanding their own pressures in life. When we become more conscious of the difficulties family farmers continue to tackle, we enable the opportunity to find better solutions together.

After extensive research and my conversations with Steve, Becky, and Dr. Rothwell, I believe the best solution the small family farmer has is to adapt in whatever ways possible. It is unfair to assume that every farmer has a mechanical background like Steve and his father, or that they are inherently a PR wiz and can skate circles around politicians, news reporters, and lawyers; however, I believe it will be critical for farmers to make changes if they want to see their farming operations survive. Though it is difficult to determine exactly, I believe that many farmers who are unable to effectively transition their next generation into the farming operation early (as Steve's father did), who do not attempt to learn modern technology (texting, emails, and the internet) and who are adverse to public engagement with non-agrarian organizations as is needed of farmers today (through programs like Young Farmers, and MSU's business and farming seminars), will undoubtedly lose to big corporations or be forced to sell their land to

either real estate developers or local conservancies for preservation of the natural land. Yes, we need our government to take note of the challenges farmers are facing, to listen to their stories and recognize that not all legislation works in their favor. Yet, the small farmer must be open to transforming practices that have potentially been their norm for years. They must be willing to embrace new technology and the innovations of agricultural researchers and environmentalists.

The Grants are, in my opinion, strong examples of innovators. They have found ways to save money, to solve problems without the need for external help, and to teach their children to love the farm, rather than see it as a chore. While I cannot predict the future, the Grant family embodies what it means to be a family farmer today. Instead of allowing challenges like pesticides, healthcare, and global competition to stop them from their work, they work twice as hard and smart, never forgetting the good in their lives, because they are not just farmers working towards a dollar sign or recognition, but for family.

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