

2022

Brown Family Farm Case Study



**Executive Farm Management
Program**

NC STATE
EXTENSION

 **COOPERATIVE EXTENSION**
College of Agriculture, Forestry and Life Sciences

 **ECU**
COLLEGE OF BUSINESS

 **UNIVERSITY OF GEORGIA**
EXTENSION

Scenario: January 2022

John Brown sat at his kitchen table, surrounded by papers. It was early in 2022 – time to think about closing the books and paying the taxes on the year just closed. He sighed and looked out the bay window over part of the Brown Family Farm – beautiful, fertile farmland in central South Carolina. They farm 4,500 acres, spread over parts of two counties. Like most farms in the southeastern US, the Brown Family Farm grows a variety of crops: corn, soybeans, sweet potatoes, a variety of produce, and – of course – tobacco.

Tobacco. Long the lifeblood of the South's farm economy, the crop's best days were long behind it. Regulations in the US regarding the sale of tobacco products and on where they could be enjoyed; higher taxes and hence, much higher consumer prices; a sharp drop in smoking among younger people; increased awareness of health-related issues (and a corresponding increase in people looking to lead healthy lifestyles) are all contributors to the sharp decline in tobacco demand, and hence a decline in overall acreage planted to tobacco. Further, a trade war with China had caused a severe reduction in tobacco contracts in 2019 and 2020 as China halted all purchases of U.S. tobacco. China started buying U.S. tobacco again in 2021 but future purchases by China are uncertain. What used to be a dependable source of high income and high profits is now an uncertain part of the future agricultural landscape in these parts.

John thought about the “big picture” of the farm. He made a list of what they were growing:

Irrigated Crops

- Corn (1605 acres)
- Cucumbers, pickling (200 acres)
- Squash, summer (150 acres)

Non-irrigated crops

- Soybeans (500 acres)
- Tobacco, flue cured (295 acres)
- Sweet potatoes (550 acres)
- Cotton (800 acres)
- Peanuts (400 acres)

The past year was very good. Strong commodity prices and decent weather meant the farm made the most money since 2013. The immediate challenge is escalating input prices and even the availability of some inputs for the 2022 crop. For example fertilizer prices are up 80% since

last spring. Should he buy inputs now if they are available; even at the hugely inflated prices? Or should he just sit out some crops if he can't pencil in a profit at the current input prices?

They own 500 acres of land which is valued at \$3,500 per acre. The owned tract has 300 acres of good farm land, 100 acres of managed timber with the remainder in woods and buildings. 3,400 acres of crop land are rented. The farm owns equipment with a current market value of about \$3.4 million. [A list of equipment precedes this narrative.]

As a result of the trade war with China the Browns had no contracted pounds with China Tobacco for 2018, 2019 and 2020. Their tobacco acres fell to 221 acres. But in 2021 China Tobacco re-entered the U.S. market. In 2021 they had 295 acres of tobacco. Even with China back in the market their tobacco acreage is down from 5 years ago which is a real concern since tobacco is still the most profitable crop they grow. Sweet potatoes have been good and they've grown their acreage from 300 to 550 acres in the last couple of years which has offset the loss of tobacco pounds. They've put down 3 center pivots on owned land and are considering another. The farms they rent have 4 center pivots. They'd like to figure out a way to get another center pivot on one of their rented farms. John recalls walking the field where the center pivot was located and seeing puddles in some spots, and dry land in others. "Strange," he remembers thinking.

Getting water to the crops is a big concern. It seems like half the time the region is threatened by drought, and the other half is storms like Hurricanes Floyd, Matthew, and in 2018, Florence and Michael. But on the other extreme, drought was so severe in the mid-2000's that the aquifer under the southeastern US was starting to be contaminated with brackish water from the ocean – a deadly threat.

John sighed again. "Climate change," he thought. "People tell me it isn't real, but I've seen the changes since I was a kid. Winters are way more severe than they used to be. We have more tornadoes, and floods, and severe weather than we ever have. At the same time, we are in moderate to severe drought conditions a lot of the time. I'd like to ignore it, but the future of the farm may be at stake."

He thought about the history of the farm. It is owned as a simple partnership by John Brown and his parents, Kent and Vicky. Kent and Vicky own another 500 acres that they rent to the farm. Kent and Vicky deeply love the farm, having built it from scratch, starting it when they were in their 20's. They've lived through three significant economic recessions and a head spinning amount of change in 35+ years running the farm. Kent and Vicky are nearing their 60's and just had the stark realization that they have virtually nothing put away for retirement. All their efforts and most of the farm profits have been plowed back into growing the farm to its current size and putting it on sound financial footing.

John knows that his parents love the farm and would really like his younger sister Anne to join full time, and help John take it to the next level over the course of another generation. Anne graduated from NCSU in May with a degree in Ag Business Management and has been helping out in a “jack of all trades” capacity. John’s brother Robert is a banker and not really interested in farming. (Of course, they want to treat Robert equitably also.) The big question facing John is this: *what will farming look like over the next generation?*

They have 5 full time employees and use H2-A labor for the tobacco and sweet potatoes. Last year they had a crew of 55 H2-A workers for 26 weeks. Their average wage rate was \$12 per hour and it cost them \$700 per worker to get them here. They have good housing in place for the H2-A workers.

Kent is 59 and Vicky is 57. They started the farm shortly after they got married in the early 1980s. They started with 25 acres of tobacco and have grown over the years to eight crops on 4500 acres. Tobacco acreage had grown to over 600 acres a few years ago but has shrunk by half over the last five years. In the early 2000s, Kent added a trucking company, and in 2010, a packing facility for sweet potatoes.

In fall 2018, Kent had a serious bout with cancer requiring a long convalescence, and serious limitations on his ability to play an active role in the operations. Decisions need to be made on retirement (which, as we’ve seen, they are unprepared for), the operation of the core farming business, and what to do about the operation of the subsidiaries. The weight of running all this – while it has been mostly John’s job for some time – is now entirely on his shoulders. And to be honest, Kent and Vicky’s contributions have been declining for some time, they still take the same draw as they have the last few years. It’s causing some tension.

The complexity of these operations and the scale of the business is overwhelming the largely manual way the businesses are run.

As we’ve seen, John, 32 years old, has been shouldering the majority of the farm operations, with Kent and Vicky playing a decreasing role – Kent obviously because of his injury, Vicky because the new accounting software, SAGE, which at \$1500 a month, is expensive and difficult (for her) to use and she’s feeling marginalized as a result. Katie is a recent part-time hire as an assistant to Vicky in the office and is a natural with technology as a member of the “born on the Internet” generation. Katie won everyone over with her energy and outgoing personality, but Vicky is getting to the point where she just wants to strangle her.

On the other hand, John and Anne are relying on Katie and have been talking about bringing her on full time and giving her more responsibility.

Nobody – not Kent, not Vicky, and not John – has ever really thought strategically about the farm as a business. John thinks it is high time to start doing so, and start with some fundamental questions: Who are my customers? Why do they buy what I grow? And why do they buy it from me? (The general answers to these questions are: the target market, the value proposition(s) of the business, and the business' source of competitive advantage.)

John realized that he doesn't know the answers. He's a "price taker" not a "price maker". He doesn't like it but doesn't know how to break out of the pattern.

He doesn't know much about who his customers are or what they want, or (perhaps more importantly) what their customers want. He assumes that they want high quality produce at low prices, so he finds the right seeds at the right price and tries to run a very cost-effective operation. But he doesn't know for sure that's what they want.

Or what he wants. Does he want to market his produce directly to grocery stores like Whole Foods or Food Lion? Or does he want to keep selling to packers and brokers? Should they consider other retail venues or even restaurants? Does the packaging matter? Does it go straight from the farm to the store in the same packaging, or does it get transferred one or more times? Does he pay more for higher grade cultivars, or focus on cost? (This is deciding between the two "generic strategies": being a low-cost supplier or being a differentiated supplier.)

As do many farmers, the Brown's have often adopted the latest production technologies to keep pushing down the cost of production. But it seems like a never ending treadmill. For the field crops, moving up the value chain and escaping the price taker role seems very difficult. Should they change their crop mix? They added peanuts to the farm after the end of the peanut quota program in 2003. But their equipment is older four row equipment. The peanuts rotate well with the corn and cotton, but if they are to continue growing peanuts they must replace and upgrade equipment. This would probably mean an expansion in peanut acres. Or should they just drop the peanuts? This might not impact corn acres but dropping peanut acres might mean dropping cotton too.

John thought about his second cousin, Richard, a recent Clemson MBA graduate with a computer science degree from Georgia Tech before that. He also has five years' work experience at Oracle on the west coast. He has a passion for cloud computing and applied technology. John invited Richard to come look at the farm operations and see what he thought could be improved through technology. Richard grew up on a farm one state over, so was familiar with the challenges and opportunities.

John had been thinking about closing the trucking company and selling the equipment even though it brought in \$2M last year and revenue has been rising. Selling the trucking line might

bring in some cash to fund retirement plans for Kent and Vicky and provide working capital for the rest of the farm. But the post pandemic demand for trucking made it their most profitable enterprise in 2021. Keeping drivers has been difficult. John and Kent have both had to step in and drive trucks several times this year. Expenses continue to rise as the competition for CDL drivers is fierce. They have had to raise wages by almost 25%. Other driver jobs offer signing bonuses and even pay retention bonuses.

He's seen some changes in labor productivity but isn't sure why. Maybe it is time for a discussion about hiring a key non-family member, but the current manager has grown sales. John recognizes that this is a matter of cash flow versus profitability of the company; is it appropriate to invest in new equipment while profitability is flat?

Even though the packing operation has been declining, there does appear to be new opportunities for custom packs of sweet potatoes for specialized markets, perhaps even export to Japan or Moldova. They are Global Gap certified and export to the EU through a broker. They've thought about going directly to customers in Europe as do some of their competitors. But this necessitates a person dedicated to marketing the crop. With all John has had to juggle, there just hasn't been time to give this the attention it needs.

The packing entity produced \$5.9M in revenue last year but is seeing a decline year after year. The operation purchases all the sweet potatoes from the farm entity as well as contract purchase; so there are a lot of variables for revenues and costs. A financial analysis may help narrow down some major problem areas. Maybe it is time to look at how the packing operation is managed and set it up with a top-notch entrepreneur with full financial responsibility. Perhaps they could even sell it, too, with guaranteed long-term contracts to process the entire production of the Brown Family Farm. The real question, John realized, was that these ancillary operations aren't just ways to make (and use) money. They should add value to the whole business.

What value does the trucking company provide to the business and its customers? Does it lower costs? Shorten the time between harvest and delivery thus extending shelf life? Does it provide any competitive advantage to the Brown Family Farm? Is it better to own the equipment and staff, or would he be better served to sell and contract the services? Kent is opposed to anything that impacts employees but John feels stuck between multiple choices without any real data on which to base a discussion.

The packing operation is facing some of the same challenges as the trucking division. . Labor in the packing operation is also a big concern. Local manufacturing wages have risen by \$5 per hour. One of their long term packing employees (non-H2A) has gone to work for the local Amazon Distributor and has recruited a couple of former employees over because they can make more money and earn overtime.

The questions aren't just about the past and present. They are about the future: how can these side businesses add value to the business and its customers? How can they provide a source of competitive advantage?

John had no idea how to answer. Up until this point, he didn't even know to ask these questions, but they now seem so fundamental, so foundational, that he feels an urgent need to find out. "Marketing," he said to himself.

Marketing isn't just about promotion and advertising, it is a way of understanding deep customer needs and wants. Walk a mile in their shoes and observe how your products fit into their operations. An experienced marketing person can gain insights that can lead to ways to create value.

The Brown Family Farm needs to grow revenue. The farm also experiences unwanted product waste and has determined if the market distribution network can be increased, waste is reduced, sales will increase, and profit will be increased. The first line of offense to increase revenues is to sell what is currently produced, thereby decreasing waste. No new production, equipment or major investment is required.

Problem: no one person is focused on the distribution network. Kent established the current contracts and fortunately these contracts have remained steadily in place over the last 4 years. This "complacency approach" to sales has kept most of the product moving but there is still some to be sold, and honestly, there may be more margin that could be obtained with a focused sales and marketing effort, especially with a skilled negotiator on behalf of the farm. No one has explored how to move or use the less desirable blemished product with any consistency or urgency - another opportunity.

John was looking at the farm's income statement and saw line items for revenue by crop. It suddenly occurred to him that he didn't know what it cost him to produce each crop, or even if they were all profitable. Fortunately, his extension agent knew someone at Clemson who could produce a report on his unit costs of production.

COST OF PRODUCTION SUMMARY

Crop	Total Expenses	Less Govt & Other Income	With Labor & Mgt	Machinery Cost / Acre
Cotton	0.78 /lb.	0.70 /lb.	0.70 /lb.	137.04
Corn, Irr.	4.61 /bu.	4.55 /bu.	4.55 /bu.	23.04
Soybeans	11.63 /bu.	11.27 /bu.	11.27 /bu.	23.04
Tobacco, Flue Cured	1.99 /lb.	1.98 /lb.	1.98 /lb.	554.64
Sweet Potatoes	12.11 /ton	12.08 /ton	12.08 /ton	1,347.50
Peanuts	0.02 /lb.	0.02 /lb.	0.02 /lb.	-
Cucumbers, Pickling, Irr.	20.74 /cwt.	20.64 /cwt.	20.64 /cwt.	432.93
Squash, Summer, Irr.	14.85 /bu.	14.81 /bu.	14.81 /bu.	495.85

John and Anne have been having regular weekly meetings to talk about the future of the farm and how to prepare for their parents' retirement. They both recognize that they need to answer some of these questions sooner rather than later. The future of the farm is at stake. They also have some significant investments and improvements that they must plan for. Just this past week, they were discussing their future labor needs, thankful that they were able to fill their positions this year, but uncertain of how they would continue to meet those needs in the future. Anne was also pretty adamant about their need for additional food safety training for employees. Kent has been adamant that what they have been doing with their workforce has been working, so "why change it and spend money?" if it's working. John agreed at the time, but now is wishing he had taken Anne's concerns more seriously.

Little did he know what was about to happen.

The Characters

John: John Brown is 32 years old and a crop science graduate from NCSU. He's married with a toddler. His wife is a school teacher and is not involved in the farm. He worked five years in sales for Crop Production Services, Inc. before returning to the farm two years ago. John was extremely successful in the relationship building and selling process. He didn't love the structure and the extensive time away from his family and found that he struggled to meet his documentation deadlines. He and his father and mother are equal partners in the Brown Family Farm. John is outgoing and has never met a stranger. He loves to talk, socialize and has always

been considered the life of the party. He has a great vision for the farm and how to grow and expand, but hasn't been able to settle on any one solution.

Kent: Father of John, husband to Vicky. Kent has worked hard to build this farm. He is dedicated, driven and works from sun up to sun down. He has seen the farm be sustainable over the years and it has supported his family. Technology, consolidation, pressure about retirement are all things on his mind. He has always spoken his mind and it has worked well. His kids used to call him the drill sergeant, but in his farming world, sometimes you had to bark orders in order to get work done. Farming is dangerous, hard work, but he loves it and wouldn't trade it for the world. He has ideas about how to grow his retirement and sustain the farm, but that is going to mean a few changes around the business. He anticipates some difficult conversations in the days ahead.

Vicky: Wife of Kent and farm office manager. She is the backbone and everyone knows it. She handles all the reporting, payroll, and record keeping. You name it and she can put her fingers on it and do it. It's a big job that requires detail and patience. She is known around the place for asking lots of questions and keeping track of all the details. The kids know her for her "to do" lists; her long hours in the farm office; and her ability to run their household like a champ. No one seems to understand how she gets everything done, but she manages it. However, it's time for someone else to begin learning the operational/reporting side of the business as she is not getting younger, and there are only so many hours in a day. Further, the operations (farming, trucking, and packing) are all becoming much more complex, and that demands some level of technology be introduced to improve efficiency. She has many questions about what is going to happen in the future. She is looking to her husband to help her family set the direction for the future.

Robert: He is a banker. Like John, he is at times outgoing, but not nearly as much. He likes the role of the banker. He is constantly finding solutions and bringing people together to solve problems. It seems like that is the role he has played during his entire life. He has been bridging the gap in his family forever. They come to him to talk through family issues and dynamics and he gets pulled back into family decisions to help them work through disagreements and challenges. He likes that role but doesn't see himself involved in the daily operations of the farm – it's not in his blood the way it is for the others.

Anne: She graduated in May and is a ball of fire. She does have the passion of farming in her blood and has since she was a little girl. She isn't afraid to speak her mind and often stands up to the other family members. She has been studying farm management and is intrigued with the work her mom does in the office as she loves technology, numbers and the facets that make the business work, yet she is thinking about how to take the family farm to the next level in order to support the growing family. She is direct and passionate when she speaks, but not the outgoing personality of her older brothers. John and Kent are excited to have her join the

farm but would really prefer she work away from the farm to gain valuable experience that she can return to the business. Anne isn't yet convinced and is chomping at the bit to use her school knowledge immediately to help the business.

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