

VACATIONER SUPPORTED AGRICULTURE

SUMMER 2020



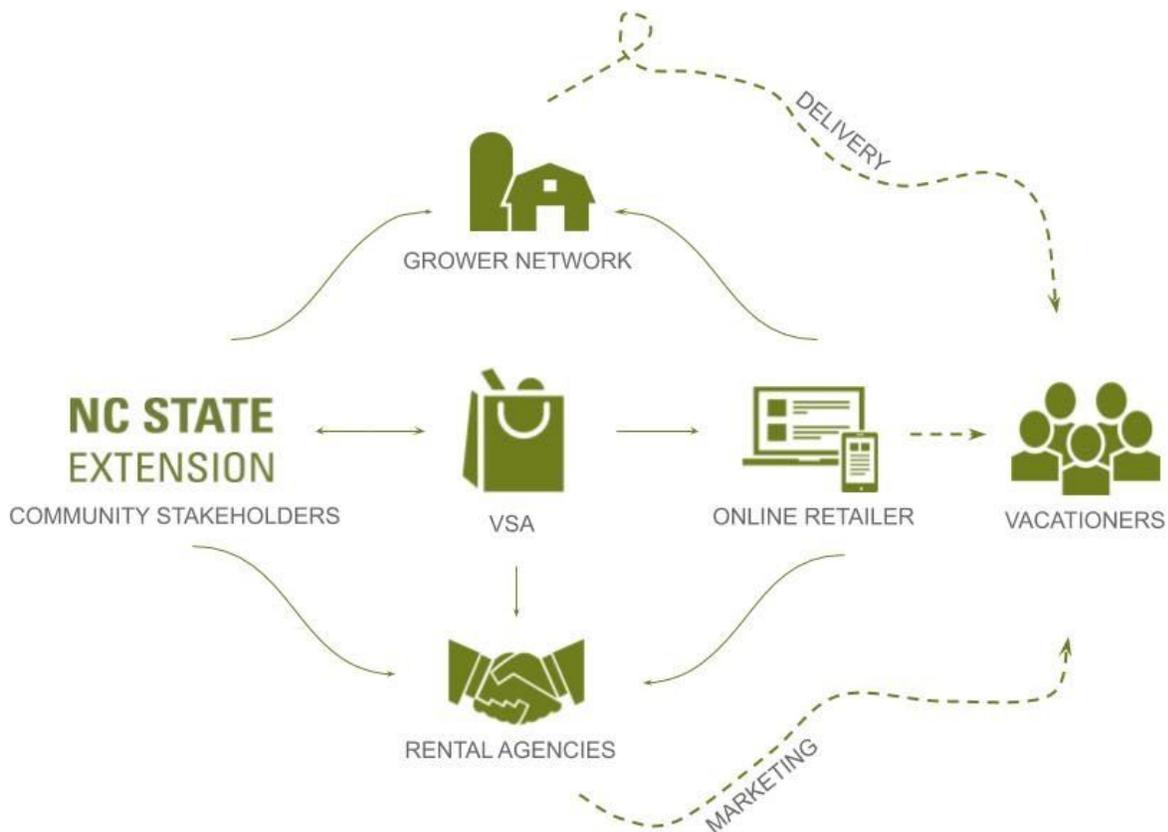
NC STATE
EXTENSION

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INTRODUCTION

Vacationer Supported Agriculture (VSA) is a project led by NC State's P1tLab and NC State Extension (Local Foods, Community Development, and Tourism Extension) aiming to connect **small farmers** with new opportunities to increase farm revenue through direct sale of fresh produce. VSA meets **discerning vacationers'** desire to: a) have convenient access to fresh local produce, b) connect with the place they are visiting by buying from local farms and farm-to-table restaurants, and c) leave positive impacts in the destinations they visit by coordinating the sale and delivery of produce bags from local farmers. VSA enables **vacation home realties** to showcase their commitment to the sustainable and equitable development of their local communities by recommending the produce bags to their guests. In each county, the **Extension Office** and **Tourism Authority** play the critical role of recruiting and supporting local farmer groups and vacation home rentals, and in turn they receive records of the impact this initiative had on farmer revenue and destination competitiveness.



VSA - A FRACTIONAL CSA

The concept of VSA consists of coordinating the sale of weekly fractions of farm production shares over the tourism season — VSA was conceived as a fractional CSA model. **A group of farmers decide how many farm shares they want to sell, and vacation renters are invited to pre-purchase a week fraction of those shares.** The VSA project first works with farmers and local Extension agents to define the produce bags and their delivery to the vacation rentals; then the team works with vacation realty companies and local tourism development authorities to promote the produce bags among vacationers. The team works with an internet retail company to administer the online pre-vacation sales and the disbursement of payments to farmers and delivery microentrepreneurs. VSA enables farmers to share the risks and rewards of sustainable agriculture through its business model, and it elevates the visibility and appreciation of farmers through virtual events and farm experiences.

A CSA DOES THIS	DOES VSA?	PLUS VSA DOES THIS
Growers and consumers share risks and rewards		Makes sales non-refundable in face of grower uncertainty due to Covid-19 and hurricanes
Fosters appreciation of sustainable agriculture and local foods culture		Offers weekly vacationer updates about condition of the farms + sharing of traditional recipes
Offers early payment of product to growers to improve their cash flow		Makes weekly payments to growers as soon as sales occur , regardless of delivery date
Provides access to the land where food is produced		Promotes hands-on half-day experiences offered by some interested farmers
Gives transparency in the business conducted among suppliers, aggregators, and retailers		Publishes annual report with summary of sales and feedback from vacationers, growers, and realties
Builds a sense of community among growers and aggregators		Organizes post-season potluck meetings , pre-season planning, and virtual training meetings
Fosters agricultural diversification for greater biodiversity and agribusiness resiliency		Creates new market channels for produce + eggs for growers wanting to diversify from tobacco

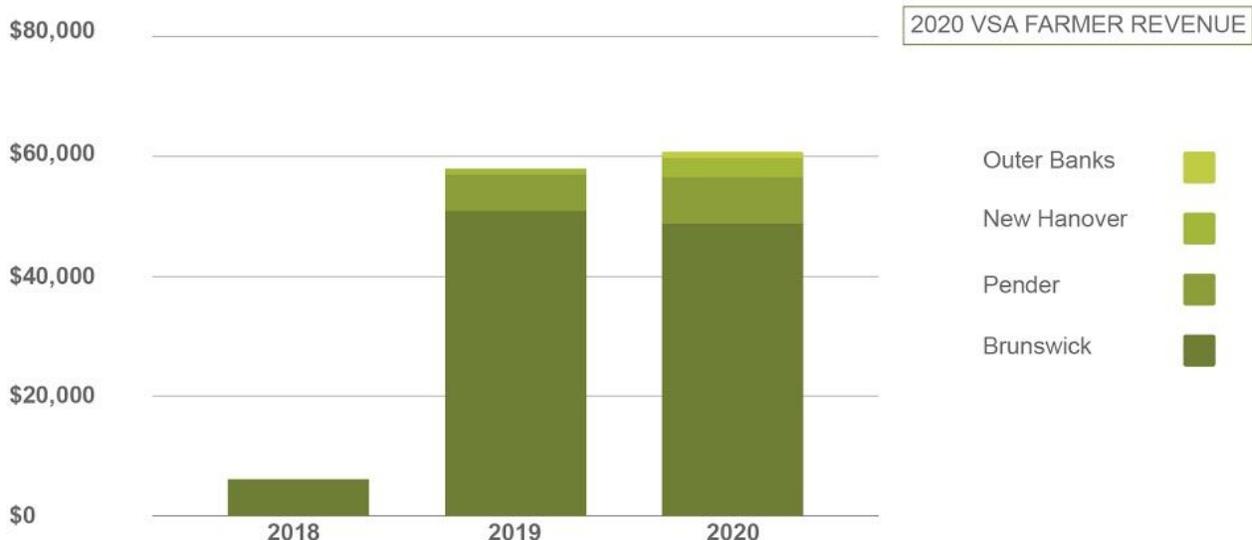
SUMMER 2020 IMPACTS

For 2020, our team aimed for total sales of \$120,000; however, the Covid-19 crisis overwhelmed key community partners and initially cast doubt on whether people would be allowed to vacation away from home during the summer. Based on stakeholder input, our team decided to continue with the planning work for the summer season, and after slower than expected sales in May and June, partner involvement and corresponding sales grew rapidly to surpass 2019 figures. Total sales for 2020 reached \$60,030, corresponding to a **9.1% growth** from 2019 despite the negative effect of Covid-19. Our team is projecting 100% growth in 2021 across most NC coastal counties, and we are exploring ways to be more resilient in face of adverse health and weather conditions.



From a longitudinal perspective, the pilot project during summer of 2018 VSA generated \$6,123 of revenue in Brunswick County. In 2019, VSA expanded to six destinations in 3 coastal counties and generated \$57,334 of revenue. This growth corresponded to a **850% increase**.

* Reported to be strongly or moderately satisfied with the overall experience on a scale ranging between 1=strongly dissatisfied to 5=strongly satisfied



OVERALL FARMER REVENUE

Our goal is to enable the improved profitability of participating farmers through direct sales to vacationers. Considering the size of participating farmers, the collaborative supply chains used to aggregate product, and the operations involved in aggregating and delivering bags, our team believes that we should strive to generate demand for bags slightly below the growers' capacity to supply. This way we create a sense of scarcity of a very desirable



product in the market which can be used to: a) generate pre-sales of bags several weeks before farmers have to deliver the product to improve farmers' cash flow, and b) flatten the sales curve which helps growers optimize supply, aggregation, and delivery operations and equipment infrastructure. As seen in these 2019 / 2020 weekly sales charts, in 2020 we were successful in flattening the sales curve with the exception of: a) the first three weeks of the season caused by beach closings and quarantine due to the Covid-19 pandemic; and b) lower supply of produce bags during August due to severe weather events.

The role of vacation home rental companies in encouraging their vacationers to pre-buy VSA bags is critical to the success of this initiative. The "2020 sales by realty" table includes a list of participating realty companies, the number of bags purchased by their vacationers, and the sales rate considering their size. An examination of this table allows us to characterize the extent to which the various partner realties contributed to the VSA initiative. For example, some realties generated very few sales while others helped sell several hundred bags to their vacationers. Moreover, some of the realties that generated substantial sales are relatively small which indicates that they were very active in promoting VSA bags to their vacationers. Additionally, longitudinal data allows us to celebrate realties that facilitated higher sales this year; and follow-up with realties that registered a decline in bag sales. Our team is gathering and debating these insights to polish our process of collaboration with realties in the coming season, in an effort to make VSA beneficial and easy to all partner realties.

2020 SALES BY REALTY

REGION, DESTINATION	REALTY	# BAGS SOLD	SALES RATE*	
			2020	% CHANGE
Brunswick Islands, Bald Head Island	BHa	112	15.56	↓ -17.0
Brunswick Islands, Holden Beach	HBa	178	8.48	↑ +7.8
	HBb	19	0.99	↓ -48.7
	HBc	10	0.86	0.0
Brunswick Islands, Oak Island	Ola	323	5.38	↑ +313.8
	Olb	209	6.07	↑ +25.9
Brunswick Islands, Ocean Isle Beach	OIBa	50	4.01	↓ -20.0
	OIBb	--	--	↓ -100.0
Brunswick Islands, Sunset Beach	SBa	184	5.58	↓ -39.2
Topsail Island, Surf City	SCa	2	1.28	↑ +100.0
	SCb	169	4.69	↑ +26.1
Wilmington Area, Wrightsville Beach	WBa	71	2.15	↑ +1,333.3

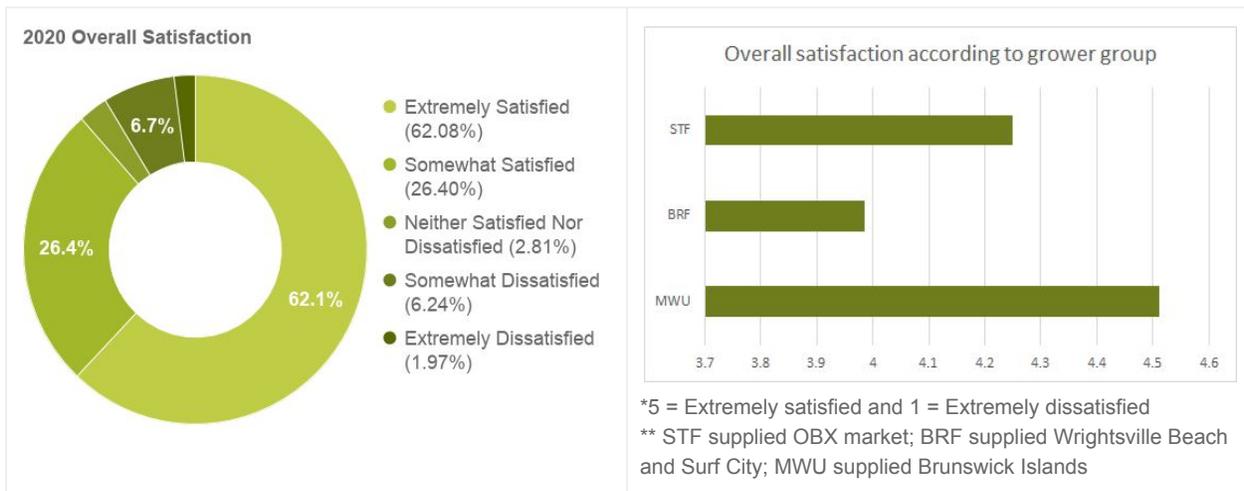
* Proportion of realty clients that buy one or more bags of produce from VSA. Value is computed based on the estimated number of homes under each realty's management, and the recorded number of bags sold to each realty's clients.

According to the sales figures reported in this table, we are pleased to give an honorable mention to the following realty partners:

- **Tiffany's Beach Rentals (Bald Head Island)** - for achieving the highest sale rate - i.e., proportion of vacationers buying bags in relation to the estimated total number of vacationers.
- **Oak Island Accommodations (Oak Island)** - for generating the highest number of bag sales.
- **Bryant Real Estate (Wrightsville Beach)** - for registering the highest growth in bag sales from 2019 to 2020.
- **Ward Realty (Surf City)** - for flexibility and proactive practices to create a hospitable and safe bag pick up experience for guests in the face of Covid-19 considerations.

VACATIONER SATISFACTION

The success of VSA in generating farmer revenue demands that all elements in the system contribute to ultimately creating very satisfied vacationers. Accordingly, we assess vacationer satisfaction at the end of each season. The donut chart below shows that **88.48%** of vacationers were either **extremely** (lightest green) or **somewhat** (light green) satisfied. Satisfaction varied across regions depending on the group of growers that supplied the produce bags. The group of growers with the highest satisfaction was also the group that supplied the largest market and has participated in VSA the longest, suggesting that our multifaceted accompaniment of these groups may be improving their entrepreneurial capacity.



To allow for a more detailed look into the way vacationers experience their purchase of VSA bags, we evaluate their satisfaction with a set of core attributes. This bar chart illustrates satisfaction levels in 2020 and the previous year across 6 attributes (with **5 = Extremely satisfied**).



This bar chart illustrates satisfaction levels in 2020 and the previous year across 6 attributes (with **5 = Extremely satisfied**). The chart shows that bag prices and variety of produce received the lowest scores, but the scores were significantly higher than the year before. This suggests that our

team and the growers groups have been and must continue to explore improvements in these key attributes of the VSA experience. In addition, the locations and service for picking up the bags continued to receive high marks; however, we can detect a decline in satisfaction. Accordingly, we need to continue to explore ways to make the bag pick up experience convenient and pleasant. Lastly, the chart reveals a marked improvement in the quality of the produce and the packaging. We attribute this improvement to our provision of large insulated tote bags to all grower groups which allowed them to pack produce more carefully to avoid damage, and to keep the produce cooler and fresher until it reached the hands of vacationers.

In addition to quantitative data, we collected open-ended comments from vacationers in an effort to explore the reasons behind their satisfaction levels. A structured content analysis of all open comments on “ways to improve the project next year” revealed the following input:

POSITIVE

Supporting local farmers brought fulfillment to vacationers
Home delivery or convenient pick up of the bags was appreciated by vacationers
Desire to pick up a second bag mid-week, or visit a centrally located market
Convenience of pickup location and safe access to fresh food during a pandemic
Shared local knowledge in the form of recipes was helpful

NEGATIVE

Inability to customize bags (quantity and variety of produce)
Poor packaging that damaged produce, or bag was soggy due to melted ice
Lack of produce variety caused disappointment (too much cabbage and not enough fruits)
Not being able to find a person at pickup site led to vacationer frustration
Desire to be able to return bags to be reused by farmers

Quotes representative of vacationers' **extremely positive comments:**

“I love knowing that I was supporting local farmers and seeing information on them was great. I appreciated the recipe given for squash casserole since we received a huge amount of it.”

“Great program for our family! Offer a 'second bag' mid-week. We'd pick one up!”

“Do this more often! This is such an incredible option and benefit, ESPECIALLY on arrival day. A whole fridge full of local produce? Sign me up!”

“What a wonderful program you offer! All went well for our first year doing this, but it would be nice to have some vegetables described in a packet of information -- we had something that looked like basil, and it was an herb we never used before. This year it was great to have this program because we did not eat out and cooked everything from our condo to stay safe.”

Quotes representative of vacationers' extremely negative comments:

"Fruit is more helpful than veg for my kids on vacation. We really liked everything but it was a little challenging to use everything- especially the cabbage. I love cabbage but it was tough to deal with on vacation, not being in my kitchen with my tools, etc."

"I'd like to have less packaging. We bought 3 weeks and don't need those big red bags. I wish they could be cleaned and reused by you."

"Perhaps work on the packaging. The ice in the bag intended for the produce had melted through and it soaked a bag in my car that had textbooks and a laptop in it."

"Have someone actually take responsibility for the handovers. Our rental was Sun-Sun and I prearranged a Sunday pick up and when I got there the site had no idea what I was talking about. They had been left in the parking lot maybe and had disappeared. The farmer had to do a delivery the next morning, which was great but frustrating."

"I would have liked more fruit but understand everything is seasonal. Picking up the product was hard to find. Finally figured out the bags were just left in a cooler and no person was physically there. I'll know now for next year."

CUSTOMER SERVICE

We analysed the customer service email threads of **101** vacationers that reached out to the online retailer (www.p1provisions.com) to make an inquiry, a comment, or complain (from a total of **1,131** vacationers bought produce bags). The thematic analysis revealed that these vacationers felt positive about the project but were sometimes dissatisfied with the price and variety of the produce bags. The most salient themes in vacationers' communications with the online retailer included asking **directions**, **pick up modifications**, **product inquiries**, **info system issues** (glitches, user/system error), **bag donations**, and **connection with farmers**.

DIRECTIONS

The analysis revealed directions to be one of the most frequent inquiries in vacationer emails. Specifically, vacationers reached out asking for a **specific location**, or they notified the online retailer that they were **not able to find a person at the location** or **locate the bag at the site**, and they frequently asked **how the directions changed for late arrivals**. Vacationers who purchased bags from the Sunset Beach pickup location had the most difficulty because the pickup location was a small store behind a gas station only familiar to locals. Most vacationers reached out a few hours before arrival to clarify location or pick up time — suggesting that we might need to automate a reminder on the morning of arrival day and must have staff on call to respond to vacationers' last minute inquiries.

For example, a vacationer noted:

"I signed up for the produce pick up today at Sunset Beach. I visited the MinuteMan location listed at the link in the email at 4:00pm and there was no one in the parking lot nor did anyone inside know what I was talking about"

PICK UP MODIFICATIONS

Vacationers also reached out to the online retailer to inquire about pick up modifications as demonstrated in this quote: *"I am interested in purchasing two bags for Wrightsville Beach on July 25, but our rental starts on the following day. I asked our rental agency [. . .] if they could hold the produce for us for a day and for some reason they said I would have to ask you. Can you advise?"* Vacationers often asked if they were **able to pick up on another day**, with Sunday being the most common request, or they indicated that **another person was going to pick up their produce bag**.

PRODUCT INQUIRIES

Another persistent theme was product inquiries including **pre-purchase definition requests**. For example, vacationers would often ask questions such as *"Can you tell me how much of*

each item you listed in your email sent out today is in the bag so we can be sure we have enough for our group?" Before product delivery, vacationers asked for definitions of the product, including the overall contents of the bag and/or specific amounts of each product. Also, vacationers requested to **customize their orders**, asking to sub out certain produce or replace them all together. An example of a customization request is illustrated in this quote: *"Can you let them know to do potatoes instead of corn please. My daughter will be bringing corn so I do not need any corn - please have them replace that with something else."* After the product was delivered some vacationers would **dispute quality**, often associated with the price demonstrated in this quote: *"we would have expected better for \$90"*, but quantity disputes were often concerned with the amounts of servings: *"the email we were sent said vegetables for 4 people, there is enough lettuce for maybe 2 people"*. Overall 11 bags were replaced out of 1,334 bags sold throughout the summer as a result of quantity or quality disputes.

INFO SYSTEM ISSUES

Some recurring communications with vacationers were caused by errors of limitations with the information system supporting the VSA initiative. Occasionally, **database errors** led to the delivery of bags on the wrong date or not delivered at all, as one vacationer explains *"I ordered a box for June and one for July. Just stopped to pick it up and my name wasn't on the list. Can you still get me a box or will you refund me for one?"* There were only two instances of database error which were remedied with a home delivery of a produce bag, and the vacationer was extremely satisfied with the end result. Another problem with communication was caused by the inadvertent existence of the **previous year's website** still live indicating that all bags were sold out. This issue is illustrated in this comment: *"Are you really sold out for August 1 pick up at Holden Beach? If not, is there some way to order other than the web site?"* Lastly were **requests for rescheduling**, whether it be due to changes in travel plans as a result of Covid-19 or a hurricane, or the vacationer simply clicked the wrong week on the site. These issues required manual re-entry by the online retailer.

BAG DONATIONS

This theme focuses on the donation of bags, and vacationers' communications around that process, with categories ranging from **requests to donate due to Covid-19**, **request to donate due to hurricane**, **request to cancel due to hurricane**, and **request to refund due to hurricane**. The coastal region in which most of these destinations are located is extremely vulnerable to hurricane and storm damage. One of the goals of this project is to create sustainable markets for growers. This means vacationers must share risks with the growers when they purchase the product. This manifests as a policy to donate bags unable to be picked up due to these circumstances, rather than cancel or refund the bag cost. Overall bag donations were extremely well received and vacationers were happy to support the communities in which they visit via a bag donation as evidenced by this quote *"Our reservation was cancelled by the rental agency due to the circumstances after the hurricane. Please donate on my behalf. Blessing for a quick rebound."*

CONNECTION WITH FARMER

One theme immensely reaffirming of the project's mission were vacationers' **requests for farmer knowledge**. Vacationers reached out hoping to tap into the local wisdom of the farmer on how to prepare and store certain produce, in addition to sourcing other local products as reflected in the following quote: *"We are looking forward to the fresh vegetables. Can you provide or do you know where we could go to get fresh blueberries and fresh honey?"* Also vacationers requested more specifics on certain varieties of produce in the bags including items like tomatoes or herbs as evidenced by this quote: *"Would you be able to tell me what the purple herb was in the bag from the pick up yesterday?"* In this topic, our team has been proactive in sharing farmer knowledge and tips from Extension partners about best ways to store and use produce. The recipes and tips shared with vacationers greatly increased satisfaction, and we are exploring ways to further develop this knowledge exchange in the coming season.

OVERALL RECOMMENDATIONS FOR 2021

The findings reported in this document suggest that the **majority of vacationers were satisfied** with the VSA project (88%), an improvement from 2019. The project generated approximately \$60,000 of revenue to participating grower groups, an improvement from 2019 despite the effect of Covid-19 and of a severe hurricane. Vacationers remained very satisfied with the pickup experience and location and were least satisfied with the variety and price of the produce. Vacationers' satisfaction with packaging and the quality of produce improved significantly from 2019.

Vacationers from the Brunswick Islands market were more satisfied than vacationers from other destinations. This finding suggests that the accumulated experience, training and equipment of that market's group (i.e., Men and Women United) is having a positive effect on the VSA experience and our efforts in **supporting VSA farmers** have been effective and should continue.

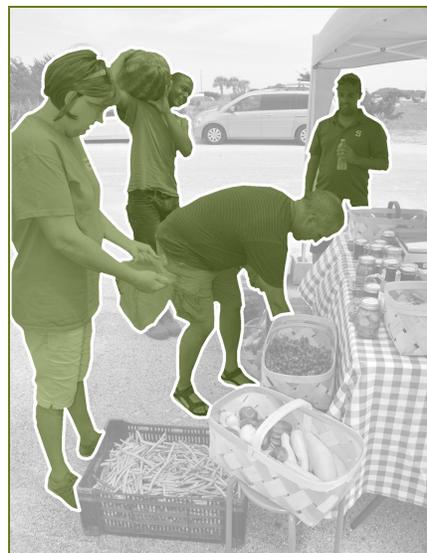
Growth on overall impact indicators suggest that the VSA initiative is growing and making an ever more substantial impact in the livelihoods of farmers. However, we will be **examining ever more granular data** in an attempt to better understand and optimize VSA. For example, we will continue to monitor sales per week in an attempt to set supply levels suitable to farmers and then sell out bags and pay out farmers well in advance of delivery dates for optimum farmer cash flow. We will also continue to contrast the ability of each farmer group in achieving optimal vacationer satisfaction in their markets so that they have clear metrics on their performance and can compete with and learn from each other. And we will also continue to monitor the sales generated by each participating realty so we celebrate the partners that truly go out of their way to support local farmers and facilitate an amenity to their vacationers.

The findings in this report suggest that VSA is providing much desired access to fresh local produce and a connection with local farmers. Nevertheless, the findings suggest a variety of operational improvements desired by vacationers. Accordingly, the VSA team will continue to work with partners to **explore changes for 2021** that can be implemented with reasonable cost and effort.

HOW VSA HAS EVOLVED

VSA was piloted in **2018** in Ocean Isle Beach under the local name “Vacation Vittles”. In that location, the produce was supplied by farmers from Brunswick, Bladen, and Columbus counties. Cooke Realty was a key local partner during that pilot year. The local nonprofit, Men and Women United for Youth and Families, involved its youth ambassadors in packaging the produce in the bags and in delivering them to vacationers on Saturdays when they checked-in at Cooke Realty. This model mimicked a farm stand where vacationers could pick up their pre-ordered bag and purchase additional produce on the spot if desired.

In **2019**, the VSA market in the Brunswick Islands area expanded to include Holden Beach, Bald Head Island, Oak Island, and Sunset Beach. In addition, VSA expanded to the Wilmington Beaches area and the Topsail Area. Men and Women United continued to lead the aggregation, packaging, and delivery of produce in Brunswick; Bear Ridge Farms became the supplier in the Surf City market, and a group of farmers from the Wilmington Farmers Market at Tidal Creek supplied the Wrightsville Beach market. The larger scale and tightening regulations on mobile farm stands led to changes in the delivery operations: i.e., bags were delivered in coolers to predetermined self-serve pickup locations in each destination. Therefore, VSA started partnering with locally owned retail shops, such as the Beach Mart in Holden Beach to serve as friendly and convenient pickup locations.



In January of **2020**, new farmer groups across the coastal plain and realty partners in destinations such as the Outer Banks and the Crystal Coast had become interested in participating in VSA. In March, Covid-19 cases began to rise in NC. Safely handling the pandemic became a hard and fast reality for the tourism sector along North Carolina’s coast and plans for VSA expansion came to a screeching halt. Some realty partners pulled out of participating in the program due to legal concerns around the pandemic, while others thought the convenience of delivered

produce would meet vacationers' desire for touchless sourcing of fresh produce. The VSA team made the decision to push forward with the program and to implement a policy to donate any bags unable to be picked up due to the pandemic to local tourism workers in need. When beach communities began to open to non-residents in May so did sales of VSA produce bags. Vacationers appreciated the ability to pick up their produce upon arrival and avoid the danger of exposure in local grocery stores. However, the pilot of this initiative in the Outer Banks yielded very few sales due to this region's particularly bad traffic on Saturdays and the communication systems employed by partner realties. Nevertheless, the VSA team explored multiple modifications to the program in this market which we hope will allow us to be successful in the 2021 season.

During **2021**, the VSA team will try to scale the project to work with 24 counties from which produce is supplied to the untapped market potential of 5 destinations including the Outer Banks, Crystal Coast, Brunswick Islands, Topsail Area, and Wilmington Beaches. The program will take the lessons learned from previous years to create an improved experience. Purchasing a VSA bag will provide access to an experience titled "**Farm Fresh Mornings**" — i.e., a virtual coffee break with participating farmers via Zoom in an effort to connect vacationers with farmers.

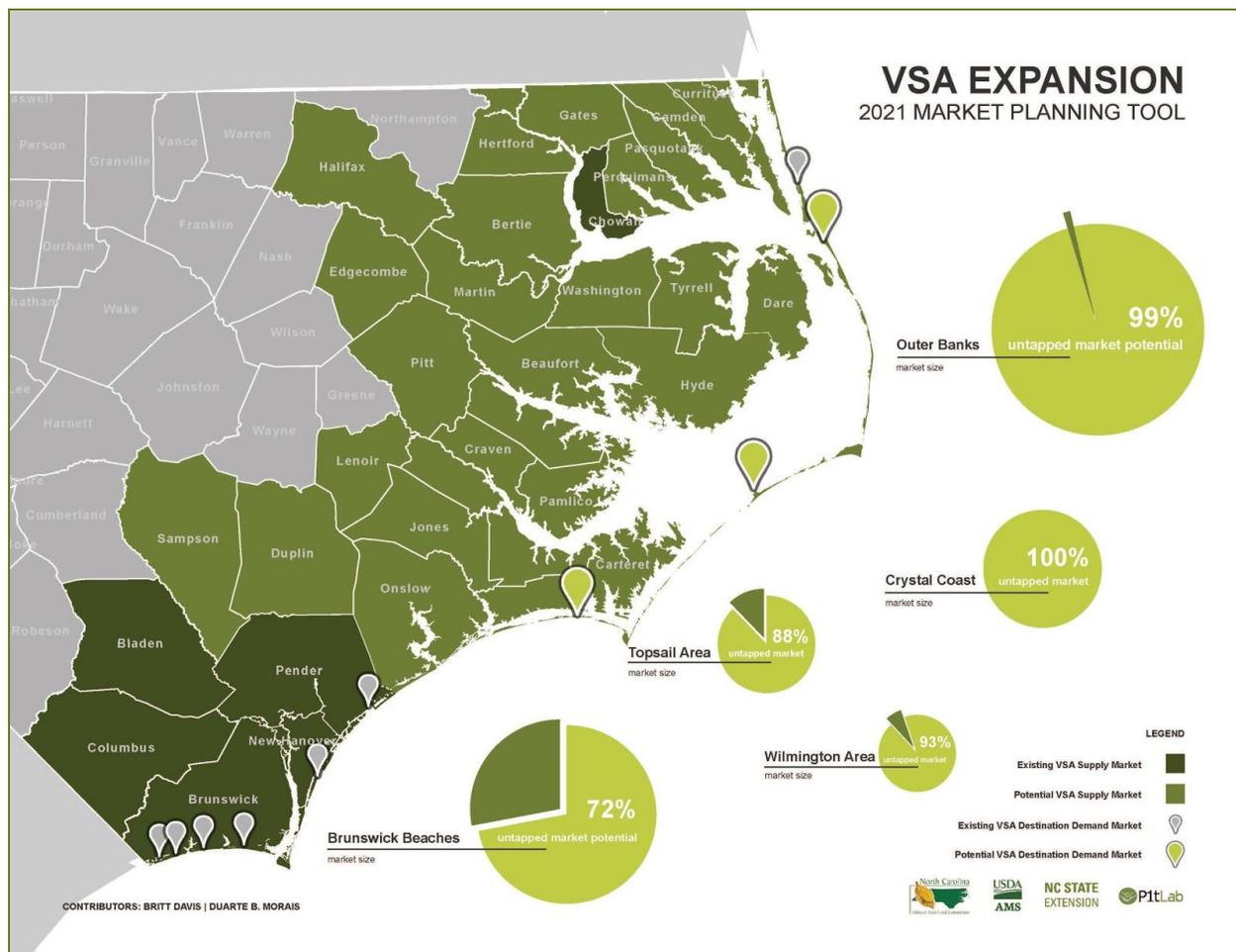
Vacationers will be able to learn about the farmers' livelihood and heritage, ask how to prepare certain foods, how the farm is doing, and where to find other local goods.

METHODS

This report relies on a compilation of data from two sources. First, we used secondary data collected by the online retailer who dealt with VSA payments and customer service communications. Second, we administered an online survey to 1,131 VSA customers in October, receiving 382 valid responses (response rate of 34%).

Data from the online retailer consisted of sales data (quantitative) which brought insight into the Farmers Revenue section of the report. Customer Service email threads (qualitative) were also analysed to bring insights to the Customer Service section. Namely, we analysed 101 customer recovery email threads between the online retailer and vacationers making inquiries and expressing dissatisfaction with the project (i.e., 101 out of 1,131 total vacationers).

Data from the online survey consisted of consumers' responses to likert-like questions (quantitative), which informed the Vacationer Satisfaction (partially) and Vacationer Intentions;



and, responses to open-ended questions (qualitative) which informed partially the Vacationer Satisfaction.

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