NARBA
North American Raspberry & Blackberry Association

THE BRAMBLE

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THE NEWSLETTER OF THE NORTH AMERICAN RASPBERRY & BLACKBERRY ASSOCIATION, INC.

GROWER & NEW MEMBER FEATURE

Meet Vince Ferrante from Carolina Berry Group

What do you do after a thirty-three-year career rising to the executive level in some of the biggest companies working with berries in the US? If you are Vince Ferrante, you go back to the beginning and start growing berries using new technologies and principles of sustainable agriculture.

Vince is a first-generation farmer who earned his Crop Science degree from California Polytechnic University San Luis Obispo. Throughout his career he has worked for his wife's family's farm, Teixeira Farms, Inc., one of the largest west coast vegetable and berry operations.

For over 20 years, Vince has worked in every aspect of the business including; farming, pest control, harvesting, cooling and international and domestic produce sales. When

Long cane blackberries grown under high tunnels. Photo credit: Carolina Berry Group

Vince Ferrante (left), Carolina Berry Group Executive Vice President & North Carolina Caneberry Association Board Vice President with son, Michael.

the family decided after 40 years to shut down the farm and focus on land leasing and cooling, Vince went to The Dole Food Company as a senior member of their management team. He turned around multiple segments of their vegetable operations and then led a team of growth in their berry division.

Throughout his career, Vince has served on many industry boards, as a water district president and as an industry spokesperson.

After 25 years of family farming and working for a large International produce company, Vince moved his family to North Carolina to take his west coast style farming to the South East. In 2018, Vince joined the Southern Belle team to partner with Brick Rooks, President & CEO of Carolina Berry Group, on future growth endeavors and business segments that will help North Carolina growers into new growing ventures.

Currently, Carolina Berry Group is growing around 40 acres of conventional blackberries and around 12 acres of conventional raspberries. Carolina Berry Group's vision is to provide farm fresh products and high-tech solutions to fruit and vegetable customers around the world.

continued on page 3

2023 CANEBERRY PRICING SURVEY

Researchers at the North Carolina State University, in collaboration with the North American Raspberry & Blackberry Association (NARBA), are conducting a survey to learn more about caneberry pricing and retail strategies for 2023. Dr. Daniel Tregeagle of the NC State Department of Agricultural and Resource Economics leads the project from the collection of data through the analysis of the results.

This survey is intended for anyone in the US, Canada and Mexico who is growing caneberries. Information from growers who wish to participate but only grew caneberries in 2022, can be accommodated. A large range of marketing channels are included in the survey, making the data more accurate than what is currently available.

The main difference between the 2020 survey and this years' survey are the omission of questions regarding the impact of the COVID-19 pandemic. The 2023 survey contains more straightforward questions about pricing and marketing. When the 2023 survey is complete, comparisons

continued on page 8

Table of Contents

Grower Feature: Carolina Berry Group 1,3
Caneberry Pricing Survey 1,8
Briefly Speaking 2
SWD Survey 3,13
In Memoriam: Bernadine Strik 4,5
Summer Caneberry Chores.....7,21
Berry Health Benefits Study 9,11,17
2024 NARBA Conference..... 13
Research Report 14,15,16
Member Snapshot: Reinforced Logistics .. 19,21
USDA NRCS EQIP Program 21
2023 Farm Bill 22,23

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EVENTS

Please contact NARBA if you have upcoming events to include here and/or in the "Events" section of NARBA's website.

January 11th-14th, 2024 – Southeast Regional Fruit and Vegetable Conference, Savannah, Georgia. Savannah Convention Center, four hotel options. Hotel booking information and early bird registration starting soon. For more information: https://seregionalconference.org/

February 27th-28th, 2024 – NARBA Annual Conference, Wilmington, North Carolina. Embassy Suites by Hilton Wilmington Riverfront will be our host hotel and the conference will take place right next door at the Wilmington Convention Center.

Briefly Speaking

Greetings from the Pacific Northwest in the peak raspberry & blackberry season! This time of year is busy for Washington & Oregon farmers and is always a joyful time in our household. I have been involved in the berry industry for over 15 years and cherish the excitement and passion that comes during these summer months.

I had the pleasure of being in the fields at the end of June and experiencing the Oregon berry harvest first hand. It takes dedication, hard work and commitment from horticulture research scientists to growers to processors to enable this industry to thrive. However, one of the biggest benefits of this industry is literally being able to enjoy the fruits of your labor. Berry season is the MOST delicious time of the year.

We are going into our second year of administration for the North American Raspberry & Blackberry Association and we are looking forward to all the great things to come this year and in early 2024.

Between now and the fall, my team will be working on a complete refresh of the NARBA website, which will include new tools to manage your membership and conference registration. We will also be organizing some online workshops that will take place later in the year.

Lastly, we are finalizing all the details for the 2024 Raspberry Blackberry Conference, which will be taking place in Wilmington, North Carolina on February 27th-28th. Stay tuned for more details and don't hesitate to reach out to me with any questions!

We hope everyone had / is having a great berry season and we are looking forward to seeing you in February!

- Darcy Kochis, NARBA Executive Director, info@raspberryblackberry.com

Tour of the Oregon State University North Willamette Research & Extension Center in Aurora, Oregon. Pictured from left to right: Scott Lukas - Oregon State University Associate Professor NW Berry Program, Mary Cressler - Vindulge blog, Cheryl Norris - Bakes by Brown Sugar blog, Sean Martin - Vinduge blog, Cosette Posko - Cosette's Kitchen blog, Cade Cheney - Oh Sweet Basil blog, Carrian Cheney - Oh Sweet Basil blog, Darcy Kochis - NARBA Executive Director, Surendra Dara - Director of the North Willamette Research & Extension Center, Mary Peterson - Biological Science Lab Technician US Department of Agriculture Agricultural Research Service, and Michael Hardigan - Plant Geneticist at US Department of Agriculture Agricultural Research Service. Photo courtesy of Surendra Dara & Oregon State University.

SWD SURVEY

Evaluation of USDA-NIFA SWD SCRI Project

The Evaluation Team at the University of Florida is conducting a national survey to better understand the impact of the USDA-NIFA funded project on the management of Spotted Wing Drosophila (SWD) among berry and cherry producers in the U.S. The invasive SWD was first discovered in Hawaii in 1986 but later resurfaced in California in 2008, from where it has spread to other states in the country (Bolda et al, 2010). It has been estimated that the pest can cause up to $500 million economic damage to the berry and cherry industry annually in the U.S. (USDA, 2022). The severity and intensity of SWD attack on soft-skinned and small stone fruits calls for concerted efforts for its control.

Over the past 15 years a group of highly committed researchers have engaged in a multi-state initiative to develop and test different control practices for SWD. Some of the products are commercially available, while others are awaiting approval. For more information please Visit https://swdmanagement.org/management/.

This survey seeks to determine the level of awareness and adoption of these new techniques, and to capture the experiences of our growers in the United States with SWD as well as

continued on page 13

Information for Members

Welcome to the many new members who joined NARBA in the past six months! We are pleased to have you as part of our organization.

The **new password** for the Members-Only section is **Blossom**.

Just a reminder that your **2024 membership renewal** will be due on **February 28th, 2024**.

Vince Ferrante and family at son Josh's wedding at their Ranch in California.

Continued from page 1

One method Carolina Berry Group utilizes to provide the freshest, highest quality berries, is a focus on growing long cane raspberries & blackberries under tunnels in the southern part of North Carolina. Only around 6 acres of their berries are not grown in tunnels.

All of their berries are processed for the fresh market. For blackberries, they are currently growing Prime-Ark® 45, Caddo, Von, and Ouachita as well as some proprietary varieties. Their raspberry varieties are all proprietary as they are focusing on long-cane raspberry production.

Berry season for Carolina Berry Group starts around the end of April. Most of their acreage is in North Carolina, but they will be harvesting blackberries & raspberries in Florida with a target around the 2024-2025 season.

All of their berries are hand-picked and the Carolina Berry Group's mission is to provide excellence in packing and marketing services to local, regional and international growers of fruits and vegetables using local labor as much as possible to create year round jobs. Carolina Berry Group strives to be positive stewards of the land they farm so that we can have sustainable farms for generations to come.

Plentiful long-cane raspberries grown under high tunnels. Photo credit: Carolina Berry Group

Consumers can find Carolina Berry Group products under their own label as well as the Simply Fruit label. They distribute all across the Southeastern United States as far as Kansas and Texas and export internationally into Canada.

Vince is also the Vice President of the North Carolina Caneberry Association and is an integral member of their board. Vince is looking forward to NARBA's Raspberry Blackberry Conference taking place in Wilmington in late February of 2024.

Vince is married with 3 kids and has one granddaughter from his eldest daughter. Vince's middle son is in the United States Air Force and his youngest son lives in Texas. Vince's sons and his daughter in-law come out from Texas to North Carolina to help during berry season.

Vince also has property in Texas and enjoys hunting and fishing in his free-time.

Join us in welcoming Vince and everyone at Carolina Berry Group as a valued member of NARBA! You can learn more about Carolina Berry Group on their website: https://www.carolinaberrygroup.com/ ❖

CAROLINA
· BERRY GROUP ·

IN MEMORIAM

Bernadine Strik
April 29, 1962 - April 14, 2023
Photo courtesy of Oregon State University's College of Agricultural Sciences

A Tribute to Bernadine Strik

The berry industry around the world felt the energy, dedication and innovation Dr. Bernadine Strik brought to her work as berry specialist for Oregon State University Extension Service for 34 years. Now we have to say goodbye. Bernadine passed away Friday, April 14, 2023.

Dr. Strik's three-decade career was studded with accolades. Right before her retirement just a year and a half ago, Dr. Strik received the highest honor bestowed by the International Society for Horticultural Science for her industry-changing program on berries.

The prestigious ISHS fellowship is bestowed on scientists who have made a significant impact on horticulture worldwide. Bernadine's innovative research, teaching and Extension outreach had a significant influence on the state's berry industry, which is valued at roughly $120,000 million a year in Oregon. A similar honor came in 2007 when Dr. Strik received the American Society for Horticultural Science Fellow.

"Bernadine's impact is felt worldwide as an icon of the berry industry, a mentor, and a friend," said Scott Lukas, OSU Extension berry specialist and Dr. Strik's successor after her retirement. "Her infectious energy for horticulture, science and education produced industry-changing advancements and a legacy of knowledge spread across the globe. Her wisdom and passion for horticulture and life will be deeply missed."

But Bernadine's impact wasn't just on the industry. The students who came through her program emerged with passion and the knowledge to start a career.

"In addition to the professional accomplishments, accolades and impact she made, Bernadine was a marvelous colleague, mentor and friend to so many of us," said Ryan Contreras, associate head of the OSU Department of Horticulture and professor in the College of Agricultural Sciences. "She was a giant professionally, but more importantly, she was an amazing person. Bernadine was the genuine article, and we will miss her dearly."

Born in Holland, Strik comes by her love of horticulture honestly. Her paternal grandfather was a vegetable and strawberry grower in west Holland and her maternal grandfather spent his career selling produce at his specialty stores. Her mother and father followed in their footsteps.

When Strik was 3 years old, her family moved to Australia for six years and then settled in Vancouver, British Columbia, where they opened a large retail nursery.

Strik worked in the nursery and grew to love ornamentals. At nearby University of Victoria, where she earned an honors bachelor's degree in botany, Strik did her undergraduate thesis on rhododendron propagation.

She skipped right over a master's degree and went on to earn a doctorate with distinction in horticulture from the University of Guelph in Ontario, Canada, at the age of 25. Then Strik was offered her dream job at Oregon State University. In 2022, she told me, "I wanted to teach and do research but also work with growers because that was my background. I wanted to help farmers be more profitable so they can pass their legacy on to their kids."

Blueberry growers recognized their luck in having someone like Dr. Strik by their sides. Dave Brazelton, owner of Fall Creek Farm & Nursery, summed it up this way: "To berry growers in the Pacific Northwest, Dr. Strik was just Bernadine. That familiarity came from her unique ability for professional yet personal relationships with those in our industry. She was straight talking, to the point, always with that infectious humor. She squeezed every ounce of useful information out of her many research projects. She was the quintessential approachable scientist. Her presentations lifted us, enlightened us and helped us to learn and change. We are better growers and we are a better industry because of Bernadine Strik."

It's no wonder. In Strik's 34 years at OSU, blueberry acreage in Oregon jumped from 1,200 to 15,000 acres with large changes in production systems based on her research. Her landmark 14-year project on organic blueberry production – planting methods, fertilization, mulching, cultivar adaptation, weed control – helped drive an increase in Oregon organic acreage from 2% in 2006 to 20% in 2020 as growers adopted Strik's research-based production methods to increase their profitability.

"The industry came to me to do organic research in 2006," Strik told me. "It was important to me that they asked because there were so few organic blueberry growers back then. Despite that, the Oregon Blueberry Commission invested in the research to help the industry."

Strik's work didn't stop with blueberries. She developed research programs on planting density, trellising, pruning, fruit set, fruit quality and planting systems in strawberries, red and black raspberries, blackberries and cranberries. Strik's research also supported the development of a kiwiberry industry – the smooth-

2024 NARBA Conference
Wilmington, North Carolina

FEBRUARY 27TH - 28TH

In partnership with the **North Carolina Caneberry Association**, the 2024 conference will feature top experts presenting the latest information that benefits the caneberry industry. The hotel room block and conference registration will open in the fall.
See page 13 for more details!

skinned kiwifruit the size of a large grape that can be eaten out of hand.

Outside of work, Bernadine was just as vital and passionate. She and her husband, Neil Bell, were avid travelers, flying off for pleasure and often professionally for collecting plants or sharing information. Sometimes their two daughters, Nicole and Shannon, traveled with them, and they all climbed up challenging mountains all over the world.

Strik met her husband, who retired in 2022 from OSU Extension as a community horticulturist, in Canada in 1990. They married in 1994. Both were studying horticulture and Bell says, "Berries brought us together."

Berries brought Bernadine together with many, many people who benefited from her wisdom and that made her happy.

Black raspberries at the North Willamette Research and Extension Center (NWREC) in Aurora, Oregon. Photo courtesy of Bernadine Strik and Oregon State University's College of Agricultural Sciences

"That's all I ever wanted," she said in a 2022 conversation. "To make the berry industries and growers more successful and profitable. To know I made a difference is the best way to retire."

She made a difference. We'll remember her dedication, passion, intelligence and so much more.

"Our dear friend and colleague, Dr. Bernadine Strik, passed away much too soon after her retirement," said Bill Braunworth, head of the OSU Department of Horticulture. "She contributed so much to the berry industry and to training students. Her graduate students are contributing professionals worldwide. She made strong service contributions to our college and department, especially in mentoring newer faculty members. For her outstanding scientific contributions, she was highly honored by peers internationally. In addition to being a great scientist, she was a warm and welcoming friend to many, and loved and treasured by her family." ❖

– Kym Pokorny, Communications Specialist, Oregon State University

Summer Caneberry Chores

This list was developed by Dr. Gina Fernandez, Small Fruit Specialist at NC State University and reviewed by Dr. Marvin Pritts at Cornell. Chores and timing may be somewhat different in your area or for your cropping system. For recommendations for the Pacific Northwest, we encourage you to subscribe to the email "Small Fruit Update" https://nwberryfoundation.org/the-small-fruit-update/

Plant growth and development

- ❑ Fruit development.
- ❑ Rapid primocane growth.
- ❑ Floricanes fruit and begin to senesce.

Pruning and trellising

Floricane-fruiting raspberries:

- ❑ May need to adjust primocane numbers if canes are too thick (i.e. remove less vigorous primocanes at their base)
- ❑ Train primocanes to the trellis.
- ❑ Pinch black raspberry primocanes at 3-4 feet tall to promote lateral growth.

Primocane-fruiting raspberries:

- ❑ Train primocanes within a trellis to hold canes erect.

Erect floricane-fruiting blackberries:

- ❑ In warm climates with a long growing season, tip the new primocanes when they are about 6-12 inches below the top wire of the trellis to encourage lateral branching. Continue tipping at monthly intervals to maintain desired branching and height of canopy (laterals should reach top wire). Apply fungicide after tipping to minimize Cane Dieback complex (*numerous species*) infection.
- ❑ In colder climates, tip primocanes once when they are about 3-4 feet tall to encourage lateral branching.
- ❑ Prune out spent floricanes after they have produced fruit; remove weak primocanes.
- ❑ Train primocanes to trellis to minimize interference with harvest. Shift or V trellises make this relatively easy.

Trailing floricane blackberries:

- ❑ Train new primocanes to middle of trellis, on the ground in a weed-free area, or temporarily to trellis outside of fruiting area (depends on trellis type).
- ❑ If necessary, prune out excessive primocane growth.
- ❑ Remove spent floricanes after harvest.

Erect primocane-fruiting blackberries:

- ❑ Tip canes twice: soft tip once at 0.5 m (1.5ft) and then soft tip the laterals at 0.5 m.

Weed management

- ❑ Mow along side of row to maintain the width of the bed to 3-4 feet.
- ❑ Weed growth can be very vigorous at the same time as the crop peaks.
- ❑ Weed control is best done earlier in the season before harvest commences.
- ❑ Mow middles regularly to allow pickers to move through rows easily.

Insect and disease scouting *(these will vary by region)*

- ❑ Pay particular attention to the likelihood that spotted winged drosophila (SWD) may be present in your fields this year. Consult your local entomologist for updates on scouting methods and occurrences.
- ❑ Scout for insects
  - ❑ Spotted winged drosophila
  - ❑ Raspberry crown and cane borer (canes girdled and wilt)
  - ❑ Psyllid
  - ❑ Two-spotted spider mite
  - ❑ June beetle
  - ❑ Japanese beetles
  - ❑ Stink bugs
  - ❑ Fire ants
- ❑ Scout for diseases
  - ❑ Botrytis
  - ❑ Orange felt (orange cane blotch) (blackberry)
  - ❑ Sooty blotch (blackberry)
  - ❑ Orange rust
  - ❑ Late leaf yellow rust (be sure to distinguish from orange rust as control is different)
  - ❑ Powdery mildew
  - ❑ Double blossom (blackberry)
  - ❑ Cane blight (blackberry)
- ❑ If virus symptoms are present, affected plants may need to be rogued out to prevent spread.

Water management

- ❑ Raspberry and blackberry plants need about 1-2 inches of water/week; this amount is especially critical during harvest.
- ❑ For blackberries (not raspberries) in warmer climates only, consider installing an overhead system or evaporative cooling to reduce sunscald. Turn on once or twice...

Continued on page 21

Continued from page 1

will be made about trends following three separate data points: pre, during, and post COVID-19. Examples include what has been happening with price trends and the popularity of using different marketing channels, and if we see different price trends across marketing channels.

The hope is that the information pulled from these surveys will be used by growers to examine how their net returns have been changing over time and potentially what prices they would be getting if they were using different marketing channels. With the rising inflation over the last couple of years this information could be extremely useful to researchers and policymakers who need accurate data about caneberry pricing trends in the North American caneberry industry.

The survey will lead to two products. The first being a basic report of this rounds' results, very similar to the 2020 report. The other product is a three year comparison (2018, 2020, & 2023) that looks at trends. This comparison is intended to be published in an academic journal, ideally an open source one, so everyone can have access to it easily. The current plan is to have a report on this comparison ready to present at the 2024 NARBA conference at the end February.

The survey should only take around 10 minutes to complete. Participation is completely voluntary. Your responses will be recorded anonymously and no identifying personal information will be collected within the survey. You are free to refuse to participate in the research and to stop completing the survey at any time.

If you have any questions about the survey itself, please contact Dr. Tregeagle by email at tregeagle@ncsu.edu or by phone at (919) 515-6091. In addition, you can contact the NC State IRB Office via email at irb-director@ncsu.edu or via phone at (919) 515-8754. You may also contact NARBA by email at info@raspberryblackberry.com, or by phone at (503) 208-5589. ❖

Link to the survey:

https://go.ncsu.edu/narba-survey-2023

OR scan this QR code:

BERRY HEALTH BENEFITS

The impact of acute berry intake on metabolic control and cognitive function

By Di Xiao (Department of Food Science and Nutrition, Illinois Institute of Technology, Chicago, IL, USA), Barbara Shukitt-Hale (USDA-ARS, Human Nutrition Research Center on Aging at Tufts University, Boston, MA, USA), and Britt Burton-Freeman (Department of Food Science and Nutrition, Illinois Institute of Technology, Chicago, IL, USA)

The world's population is projected to continue aging at an unprecedented rate in the coming decades. According to the WHO, the number of people aged 60 or over is expected to be more than doubled by 2050, reaching nearly 2 billion globally[1]. Additionally, the U.S. is faced with an increasingly overweight/obesity population that is at heightened risk for metabolic disorders, which raise the risk for certain health problems including diabetes and cardiovascular disease. Aging and metabolic dysregulation are both associated with numerous cognitive and motor deficits. Therefore, the necessity for research into healthy aging is more important than ever. Collective evidence suggests that healthy dietary patterns with antioxidant-rich foods such as fruit and vegetables (etc. Mediterranean diet/DASH diet) inversely associated with incidence of cardiovascular disease[2], Type 2 diabetes[2,3], and reduced risk of cognitive impairment[4].

Previous studies have demonstrated that consumption of polyphenol-rich berry fruits like strawberry and blueberries reduced postprandial inflammation[5], improved vascular function[6] and associate with cognitive enhancement in human[7], and improved age-related declines in memory and motor function in rat[8]. Red raspberries, which are also high in fiber and bioactive polyphenols, specifically anthocyanins and ellagitannins, should produce similar beneficial effects as those seen previously with blueberries and strawberries.

Therefore, the aim of this proposal was to investigate the effects of acute dietary raspberry intake on metabolic-associated impairments, cognitive and psychomotor function in overweight/obesity adults following a meal challenge. A secondary goal of the project was to provide data on vascular function in relation to metabolic, inflammatory, and cognitive outcomes. The study utilized western high carbohydrate meal challenge that acutely induces inflammation and impairs insulin signaling, which also impairs motor and cognitive performance. We hypothesize that raspberry supplementation will attenuate and/or correct these metabolic-inflammatory disruptions, thereby improving motor and cognition function in older, overweight/obese adults after a meal challenge.

Study design

This study was approved by the Institutional Review Board of Illinois Institute of Technology (Illinois Tech, Chicago, IL 60616) and registered in clinical trials.gov (NCT03879213). All participants were provided informed consent to review and sign before initiation of any study procedures. The study was conducted in compliance with the Declaration of Helsinki and Good Clinical Practice.

This study was a randomized, single-blinded, 2-arm, controlled, within-subject crossover design using a repeated postprandial sampling paradigm (*Figure 1*). Eligible participants were instructed to follow a limited polyphenolic diet throughout the duration of their participation, and stricter guidelines were imposed a week prior to a study day visit, including to avoid berries and berry-containing products for 7 days as well as alcohol, caffeine, dark chocolate, and cocoa-containing products for 24 hours before each study visit. Dietary and physical activity patterns were otherwise maintained usual. Shopping lists and meal plans were provided to participants, to help participants adhere to the limited polyphenolic diet. After an initial 7-day run-in period on the limited polyphenolic diet, participants were randomized to 1 of 2 treatment meal sequences. All participants received both treatment meals, once each on 2 different in-lab visits and separated by at least 1 week. On each in-lab visit, participants received a standardized high carbohydrate moderate fat breakfast (HCMF) meal accompanied by 1 of 2 treatments: control (containing 0 g red raspberry) or 25 grams of freeze-dried Red raspberry powder (~1 cup fresh equivalent). The breakfast meal is comprised of buttermilk biscuits with butter and apple jelly, scrambled egg white, and a side drink (*figure 2*). Energy and macro nutrients across the meals...

continued on page 11

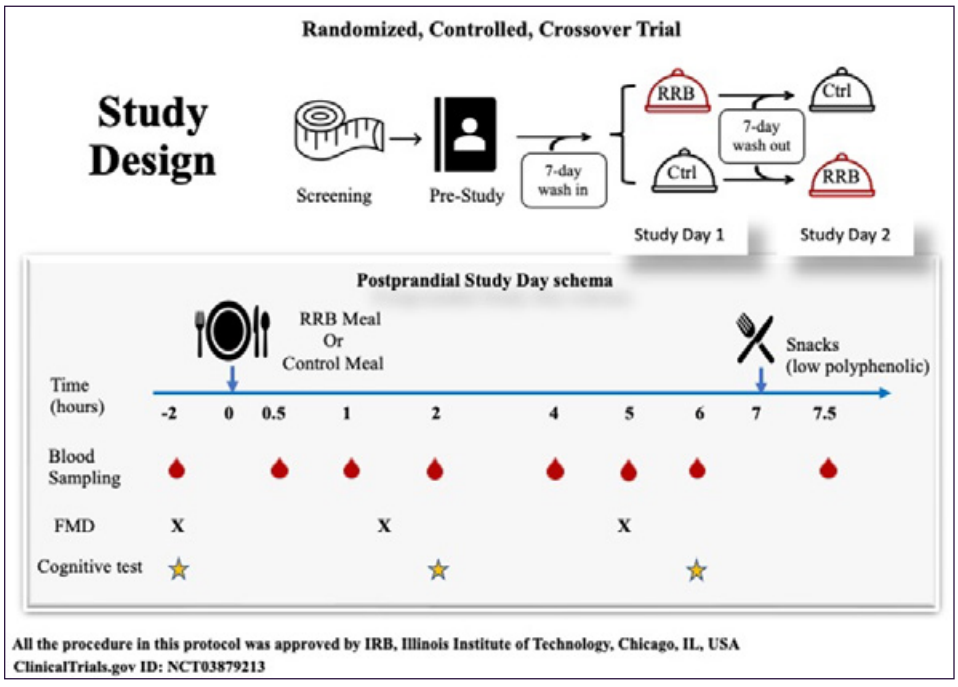


Figure 1. *Study design*

GEARMORE® IMPLEMENTS

For All Types of Narrow Row Berries

Venturi Air Sprayer

These sprayers were designed with unique distribution heads for berries. The narrow width allows for operating in the tight row spacings. The hoop house model has a cannon which sprays the "pole row". Both distribution heads have 6 double nozzles for spraying two half rows. Compact, rounded tank design permits traveling through vegetation without damaging it

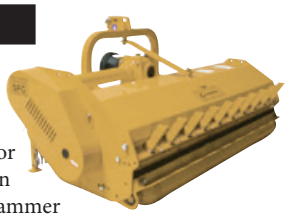
Model No:	Gallon	Width	H.P. Req'd	Wt.
P42N1-300-G	75 Gal.	38"	18 H.P.	400#

Soil Conditioner

This 3-In-1 Soil Conditioner combines heavy-duty "S" spring tines with reversible points to break the soil. The spike tooth bar follows to level the soil and breaks up clods. Then the aggressive flexible rolling crumbler completes the work by creating a fine level surface. The 72" soil conditioner is shown.

Model	Min. H.P.	Overall Width	Working Width
GSC4	25 H.P.	48"	48"

Flail Shredder



This Flail Mower/Shredder is narrow yet features a 70 HP rated gearbox. The low profile design is a great aid for working in tight areas. Excellent for mowing grasses or brush up to 2" in diameter. Shredder is available with hammer knives or double Y blades. Rake teeth are an option.

Model	Min. H.P.	Overall Width	Shredding Width
SFG95	20 H.P.	43"	38"

Tandem Disc

This Tandem Disc is excellent for knocking down weeds, leveling, and mixing in residue. The 22" notched front blades aid in cutting through hard soils, while the rear smooth blades give a smooth finish. The heavy disc weight of 1200 lbs. allows for cutting through highly compacted soil.

Model	Min. H.P.	Overall Width	Working Width
GV-5R	45 H.P.	48"	32" to 44"

Air Blast Sprayer

This Air Blast Sprayer is ideal for economy spraying. The sprayer features a reinforced polyethylene tank with smooth lines that is gentle to the plants. The tank is suspended from a heavy duty tubular steel frame to isolate from vibration and stress. The gearbox has neutral position which shuts off the fan during handgun or boom work.

Model	Min. H.P.	Overall Width	Capacity
APL400	30 H.P.	43"	100 Gallon

Rotary Tiller

This Rotary Tiller is heavier built than the compact tiller and is narrower in width. Some of the features are slip clutch, all gear final drive, 6 tines per rotor plate, and heavy A.S.A.E. quick hitch 3-point hitch. Designed for tractors up to a maximum of 50 PTO H.P.

Model	Min. H.P.	Overall Width	Tilling Width
C85	20 H.P.	38"	34"

Engine Air Sprayer

The Gearmore compact, self-contained, engine driven, Air Blast Sprayer was designed for very narrow rows and muddy conditions which allow for operating with an ATV or sub-compact tractor. Spray nozzles adjust easily and can be individually shut off. Controls allow for turning off one side. You can shut off the spray and disengage the fan for handgun spraying. This sprayer is popular for berries, vineyards, nurseries, hemp, and other narrow row crops.

Model	Min. H.P.	Overall Width	Overall Length
ATVM400	15 H.P.	37"	85"

V-Rippers

These V-Rippers come in narrow widths for berries and vineyards. The "V" design main beam and curved shanks reduce horsepower requirements. The deep ripping obtains excellent soil aeration, which allows greater water penetration and absorption. Also increases root growth and penetration. All this adds up to better crops and higher profits.

Model	Min. H.P.	Overall Width	Ripping Depth
R3-50	50 H.P.	50"	16"

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www.gearmore.com

continued from page 9

...are matched with the exception of fiber and polyphenols. This design allows assessment of the whole fruit "package" of red raspberry on health endpoints. The proposed dose of red raspberry had practical and biological relevance based on our previous work with red raspberries[9]. A small 200 kcal, low-polyphenol snack (plain bagel and cream cheese) was provided to participants after their final cognitive assessment.

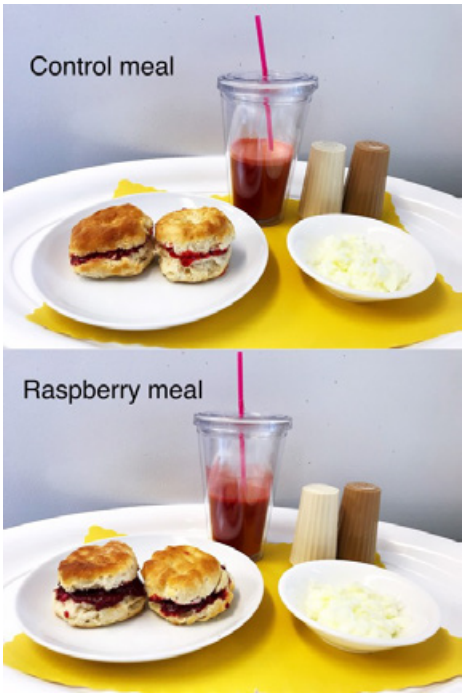


Figure 2. *Study meals*

Each visit lasted ~ 8 hours and participants were required to remain at the Clinical Unit for the duration of the visit. Blood samples were collected at 0 (fasting) and at 0.5 h, 1 h, 2 h, 4 h, 5 h, 6 h and 7.5 h via a catheter placed on the non-dominant arm by a licensed health care professional.

Cognitive/motor function/ mood tests were scheduled at 0 (fasting), 2 h, and 6 h. Flow mediated vasodilation (FMD) was conducted at 0 (fasting), and at 1.5 h and 5 h. During the postprandial testing period, participants consumed water ad libitum, and were allowed to use a computer or tablet, read, and watch television. Study procedures are outlined in Figure 1.

Study Outcomes including measurement of plasma biomarkers (Glucose, Insulin &Triglyceride) and iflammatory cytokines (Interleukin-6 (IL-6)), motor function assessment (Digit Symbol Coding test and Grooved Pegboard), Cognitive assessments (Hopkins Verbal learning test and the Cambridge Neuropsychological Test Automated Battery(CANTAB) cognitive assessments, including CANTAB paired associates learning task, CANTAB spatial working memory task, and CANTAB rapid visual processing task), Profile of Mood States and endothelial function assessment through FMD.

Study participants

Healthy men and women were recruited from the Greater Chicagoland area and screened for participation at the Clinical Nutrition Research Center (CNRC) at Illinois Tech. To be eligible for the study, participants were required to be between the ages of 55 and 70 years old, BMI between 27 and 35 kg/m2, and meet general eligibility criteria. General eligibility criteria were non-smoker and not taking any medications that would interfere with outcomes of the study, i.e. lipid-lowering-, anti-inflammatory-, or glucose interfering- medications or dietary supplements. Individuals were excluded if they had an allergy or intolerance to berries; consume> 2 servings of berries per day; had documented atherosclerotic disease, inflammatory disease, gastrointestinal or kidney disease, diabetes mellitus, or other systemic diseases. Participants with psychological or psychiatric disorders, had on site screening Mini Mental Status Exam score < 24 or Beck Depression Inventory score > 20, or recent surgery or injury to head were excluded from the study.

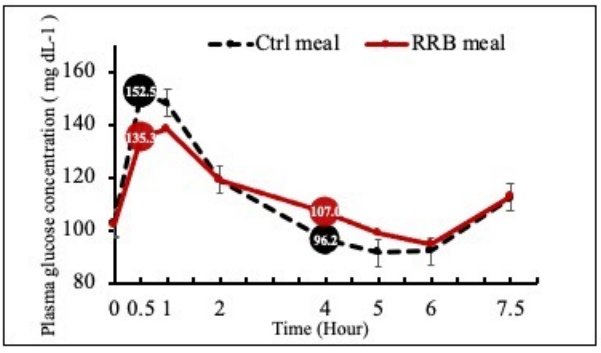
Study Results

Our results showed that adding red raspberries to a high carbohydrate meal significantly reduced the meal-induced peak glucose concentration by 8% in older adults who are overweight or obese (*Figure 3*). Similar patterns of reduced insulin concentrations in response to raspberry-containing meals were observed (*Figure 4*). In addition, we observed a significant 2% reduction in AUC 0-7.5h in insulin after meals containing red raspberry compared to control. The results also showed that red raspberry significantly attenuated the control meal induced IL-6 response at 5-hour post-meal in older adults who are overweight or obese (*Figure 5*). Collectively, the data suggest red raspberries effectively mitigated post-meal glycemic stress, reduced insulin demand, and regulated postprandial inflammation.

The result from cognitive function test CANTAB-Paired Associates Learning showed that after consuming a meal containing red raspberries, participants required fewer attempts to locate all patterns within each trial (*Figure 6*). This was demonstrated by a significant difference between meals. In addition, the data analysis of the CANTAB-Spatial Working Memory test revealed that participants made fewer errors and applied better strategies after consuming a meal containing red raspberries compared to the control meal (*Figure 7*). This was indicated by a significant difference between treatments at the 6-hour mark.

Overall, these results suggest that the inclusion of red raspberries in a meal improves visual memory and indicated that red raspberries have a positive impact on spatial working memory performance. Correlational analysis revealed positive correlation between glycemia

continued on page 17



Type 3 Tests of Fixed Effects	
Effect	P
Time	<.0001
Tx	NS
Tx*Time	0.0025

Data were analyzed using the MIXED model repeated measures (SAS Institute Inc.).
Data are expressed as LSM ± SEM.
NS: p>0.05

Figure 3. *Postprandial plasma glucose concentrations over 7.5 h after consuming breakfast meals with and without red raspberry.*

Continued from page 3

the new technologies introduced by the research team. We request your participation to complete an online survey which should take 15 minutes to complete. During the survey, you will be asked questions about your farm operations, your experience with SWD alongside with the SWD management practices you have implemented on your farm. Your timely completion of this survey is greatly appreciated as your perspectives matter in helping to shape the future of the industry. Data collected will advance research efforts focused on developing effective and efficient SWD management tools to meet growers' needs in the United States.

To complete the survey, please use the link below or scan the QR code:

https://ufl.qualtrics.com/jfe/form/SV_9B5kHcjLIRgW9gO

This study is being conducted by a professional evaluation team from the University of Florida, Mr. Damilola Ajayi, and Dr. Kay Kelsey, on behalf of Drs. Ashfaq Sial, Cesar Rodriguez, Hannah Burrack, Hannah Levenson, Vaughn Walton, Frank Zalom, Elizabeth Beers, Greg Leob, Kent Daane, Philip Fanning and Kim Hoelmer representing University of Georgia, Michigan State University, North Carolina State University, Oregon State University, University of California-Davis, Washington State University, Cornell University, University of California Berkeley, University of Maine and United stated department of Agriculture respectively.

This study was reviewed and approved by the University of Florida Institutional Review Board for the protection of human subjects (IRB# 202300289). In case you have any questions, please contact Damilola Ajayi, 706-588-2697, d.ajayi@ufl.edu or Kay Kelsey, 706-247-2492, kathleen.kelsey@ufl.edu ❖

Dr. Ash Sial is the P.I for SWDSCRI project. He is an Associate Professor in the Department of Entomology at the University of Georgia. He is the Blueberry entomologist and IPM coordinator for Georgia.

Dr. Vaughn Walton is an Associate Professor in the Department of Horticulture at Oregon State University. His research focuses on economically important pests, with the aim to provide environmentally sustainable and minimal impact pest management strategies for agriculturist in the U.S.

Dr. Kay Kelsey is a professor and Evaluation Specialist at the University of Florida. She is a renowned qualitative research methodologist and program evaluator with over 25 years of experience and has published over 200-peer review journal articles.

2024 NARBA CONFERENCE

The dates for the 2024 Raspberry Blackberry Conference have been set! We will gather in Wilmington, North Carolina on February 27th - 28th in partnership with the North Carolina Caneberry Association.

The Embassy Suites by Hilton Wilmington Riverfront will be our host hotel and the conference will take place right next door at the Wilmington Convention Center.

Online registration will take place later this fall, mark your calendars and save the date to join us for our annual event. The conference will include educational sessions, industry exhibits and a North Carolina farm tour.

Questions or interested in being a sponsor of our 2024 conference? Contact Darcy Kochis at info@raspberryblackberry.com !

RESEARCH REPORT

A public-private partnership to uncover genetic treasures in Rubus

By Katelyn Sheehan-Lust, Gina Fernandez (North Carolina State University Raleigh Department of Horticultural Science), and Cherie Oschenfeld (Pairwise, Durham, North Carolina)

Introduction

North Carolina State University, Cornell University, University of Arkansas, University of British Columbia/BC Berry Cultivar Development Inc., and the United States Department of Agriculture (USDA) have joined in a collaborative effort with Pairwise, and Plant Sciences Inc to uncover the genetic potential in the genus Rubus. The collaborators include public berry breeders, geneticists, molecular biologists, germplasm curators, bioinformaticists and data scientists.

The research at NCSU will have two main components. The first experiment is an environmental effect study. This is a "traditional" breeding study that will encompass the phenotyping of a set of traits on the same 5 cultivars in 6 geographically distinct locations over two years. The range of locations include the primary public Rubus breeding programs in North America. The cultivars being evaluated include raspberries, blackberries, and a black raspberry. The aim of this study is to provide information on the heredity of economically significant traits and the effects of genotype, environment and their interactions. Details of the second study which will be a SNP validation study of the 5 genotypes in the above experiment as well as 25 other Rubus species will be shared in a future poster or talk.

Figure 2. *Whole plots photos taken monthly for all plots at all locations.*

Locations

Figure 1. *Collaborators maintain six planting locations distributed across North America.*

Materials & Methods

Five cultivars Latham, Heritage, Prime-Ark 45, Chester, and Bristol have been planted in 6 plant plots at each location. The plots are replicated 3 times. At each location, the traits listed in Table 1 will be measure and recorded. In addition, photographs of each plot are taken monthly. All the data is shared to a common cloud file. Early 2022, the data will be subjected to a genotype x environment analysis.

Figure 3. *Inflorescences of (from left to right) blackberry, raspberry, and black raspberry.*

Plant Architecture	Yield Components	Fruit Quality
Canes per plant	Time of flowering	Brix
Erectness score	Number of flowering nodes	Acidity
Prickle score	Inflorescence flower counts	Anthocyanins
Cane length	Berry mass	Berry size
Node count		Drupelet count & size
Cane diameter		Color
Cane elasticity		Firmness

Table 1. *Examples of traits that are being phenotyped.*

Rubus Uncovered: Other Studies

Plant Sciences Inc

- Development of phenotypic data of over 300 genotypes
- High throughput phenotyping as a joint effort with Pairwise
- Plant architecture and fruit quality

NCSU

- Diversity analysis of raspberry (R. ideaus)
- Marker development

USDA

- Ploidy estimation of USDA germplasm

University of Arkansas

- GWAS on blackberry
- Marker development

Generated by Pairwise and shared with collaborators:

- 15 whole-genome assemblies
- Genomic resequencing data for public accessions

(See Figure 4)

Figure 4. *Examples of diversity present in large planting representing over 100 species and 300 genotypes.*

Impact

This public-private approach to conducting Rubus research will provide holistic data for raspberry and blackberry breeders which in turn will benefit growers. The Rubus genus has had limited genomic development due in part to its rich diversity (there are over 600 species) of the crop and limited financial resources in the public sector. The data generated by this project will be utilized by the breeders and their successors in the public breeding programs involved in this project for decades. This project will reintroduce useful genes that have been lost and introduce new genes that should improve Rubus' flavor, yield, bioactive compounds as well as

Continued on page 16

Continued from page 15

the ability to tolerate pest and climate challenges. This project will also serve as a model for future public-private collaborations. The collective goal of Pairwise and the public institutions is to advance both genotyping and high throughput phenotyping methods (including automation and image analysis). The public and private scientists also plan to jointly publish peer reviewed papers as a result of this collaboration.

Questions?

Contact: kesheeha@ncsu.edu ❖

Collaborators

Please support raspberry & blackberry research through a donation to the Foundation.

All donations are tax-deductible. Send a check to NABG-RF at PO Box 56587, Portland, OR 97238 or donate online at www.raspberryblackerry.com/research-foundation.

If your company is interested in developing a funding relationship with the Foundation, contact NARBA admin, info@raspberryblackberry.com .

continued from page 11

and spatial working memory error, possible explanation for red raspberry associated benefits on memory. Statistical significance was not achieved on the rest of the study outcomes.

References

1. United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. (2017).

2. Sikalidis, A. K., Kelleher, A. H. & Kristo, A. S. Mediterranean Diet. Encyclopedia 1, 371–387 (2021).

3. Campbell, A. P. DASH Eating Plan: An Eating Pattern for Diabetes Management. Diabetes Spectr. 30, 76–81 (2017).

4. Tangney, C. C. DASH and Mediterranean-type Dietary Patterns to Maintain Cognitive Health. Curr. Nutr. Rep. 3, 51–61 (2014).

5. Edirisinghe, I. et al. Strawberry anthocyanin and its association with postprandial inflammation and insulin. Br. J. Nutr. 106, 913–22 (2011).

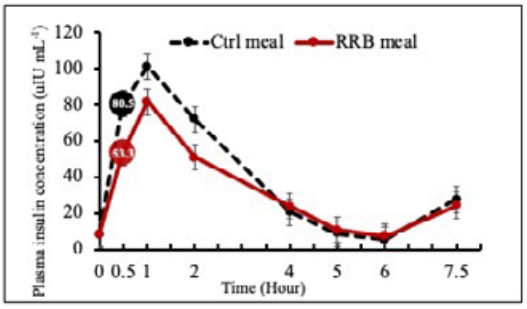
6. Huang, L. et al. Strawberry Consumption, Cardiometabolic Risk Factors, and Vascular Function: A Randomized Controlled Trial in Adults with Moderate Hypercholesterolemia. J. Nutr. 151, 1517–1526 (2021).

7. Rutledge, G. A. et al. Blueberry phenolics are associated with cognitive enhancement in supplemented healthy older adults. Food Funct. 12, 107–118 (2021).

8. Shukitt-Hale, B. et al. The beneficial effects of berries on cognition, motor behaviour and neuronal function in ageing. Br. J. Nutr. 114, 1542–1549 (2015).

9. Xiao, D. et al. Attenuation of Postmeal Metabolic Indices with Red Raspberries in Individuals at Risk for Diabetes: A Randomized Controlled Trial. Obesity (2019) doi:10.1002/oby.22406. ❖

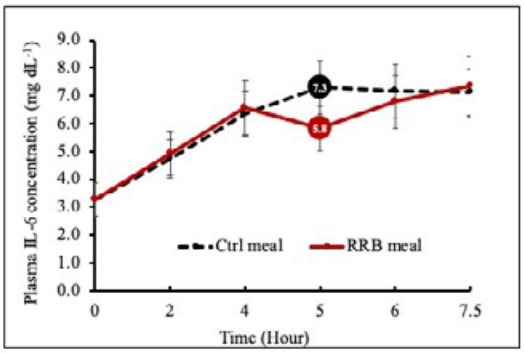
Figure 4. *Postprandial plasma insulin concentrations over 7.5 h after consuming breakfast meals with and without red raspberry.*



Type 3 Tests of Fixed Effects	
Effect	P
Time	<.0001
Tx	NS
Tx*Time	0.0177

Data were analyzed using the MIXED model repeated measures (SAS Institute Inc.).
Data are expressed as LSM ± SEM.
NS: p>0.05

Figure 5. *Postprandial plasma IL-6 concentrations over 7.5 h after consuming breakfast meals with and without red raspberry.*



Type 3 Tests of Fixed Effects	
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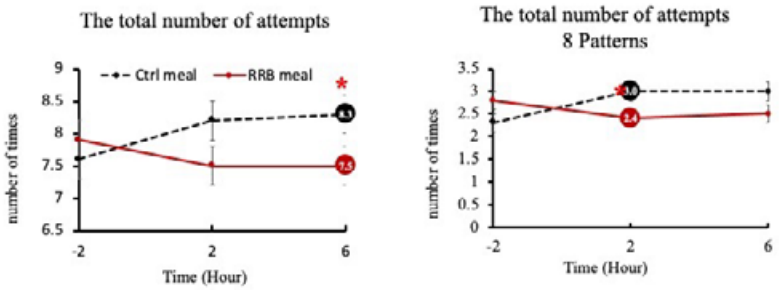
Tx	NS
Tx*Time	0.045

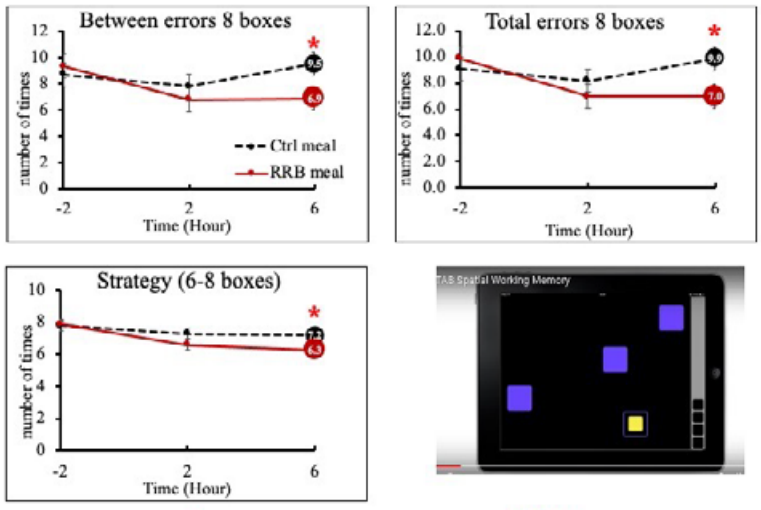
Data was analyzed using the MIXED model repeated measures (SAS Institute Inc.)
Data are expressed as LSM ± SEM.
NS: p>0.05

Figure 6. *Postprandial CANTAB -Paired Associates Learning tasks over 7.5 h after consuming breakfast meals with and without red raspberry.*



Data are expressed as LSM ± SEM. *Significant differences between treatment at 2, 6 hour (P<0.05).

Figure 7. *Postprandial CANTAB-Spatial Working Memory tasks over 7.5 h after consuming breakfast meals with and without red raspberry.*



Data are expressed as LSM ± SEM. *Significant differences between treatment at 6 hour (P<0.05).

MEMBER SNAPSHOT

Reinforced Logistics

Reinforced Logistics has come a long way from their early days as a working blackberry farm in Bedford, Pennsylvania to become a leading cold chain transportation company making sure fruit and vegetable crops arrive at their destination at the peak of ripeness and in the best condition for retail sales.

The story begins in 2012 with a family owned business called Bedford Plastics. The business began selling fiberglass to Trellis Growing Systems, a company looking for a partner for their installation berry farm, showcasing a rotating trellis system for blackberries. Trellis Growing Systems already had demonstration farms in Ohio and Iowa and were looking to expand into a larger farm in Pennsylvania. The consortium purchased 20 acres in Bedford County and named it Blackberry Bottom. The goal of the project was to showcase not only the labor saving trellis system but to prove that it was possible to commercially grow blackberries in the harsh conditions of the NE. Within just a few years Blackberry Bottom Farm was the largest blackberry grower on the east coast and a leading distributor providing berries to Walmart, Costco, Giant Eagle, and many other retail outlets.

The farm was thriving for ten years under the leadership of the Stahl family, owners of Bedford Plastics. In 2021, according to Greg Hauck, Reinforced Logistics Controller "Our berry plants fell victim to cane blight which left us no choice but to switch direction. With all the knowledge we had gained over the years we wanted to stay the course and our only logical move was to enter into the cold chain process of fresh produce"

Reinforced Logistics was opened in 2023 to meet a need that was evident when Blackberry Bottom Farm was seeking the best options for transporting their produce to market.

28 acre Blackberry Vineyard located in Bedford, PA

Greg points out that " while owning our own berry farm we had several encounters of dealing with the ever changing transportation market. With our knowledge of this we felt we would be a great asset to the market." When asked about the unique benefits Reinforced Logistics offer berry farmers Greg cited, " ... providing on time trucks, prechilled trucks, drivers with produce knowledge, temp recorders, cold storage all while making sure our trucks were equipped with the newest reefers."

Early access to cold chain is a key requirement for agribusinesses and farmers to take advantage of the growing demand for fresh produce in both domestic and international markets that require consistent quality, large volumes, and high levels of food safety. When a farm has access to transport service that targets their crop and provides trained handlers to facilitate a particular crop, it can reduce the amount of post harvest loss and ensure that a high quality, premium crop reaches the point of sale on time and in the best condition.

Prepping pallets of blackberry boxes.

Greg Hauck feels that Reinforced Logistics' background in farming gives the company an advantage over other shipping/logistics companies because they "understand the market and how important getting the produce from field to the shelf in a safe and timely manner can be when you only have hours/days to make sure all produce is sold for top market price. We now understand both sides of Farming... from the fields to the trucks and everything in between."

Numerous studies have shown the importance of maintaining the cold chain without breaking it and heating up the fruit when there is no practical way to cool the temperature back down again. When fruit gets warm it loses some of its sugars, vitamins and antioxidants, and can more easily bruise and decay. The importance of a reliable cold chain transportation system is imperative in increasing sales of the highest quality fruit.

Reinforced Logistics offers shipping to anywhere in the United States, Canada and Mexico, including multi stop distribution and expedited service. They use the latest Qualcomm

Continued on page 21

Continued from page 7

Water management (cont.)

- ❑ ...a day from 10 am to 3 pm for short periods of time (approx. 15 minutes) at mid-day only.
- ❑ Give plants a deep irrigation after harvest.

Nutrient management

- ❑ Take leaf samples after harvest and send to a clinic for nutrient analysis. Do not fertilize with nitrogen at this time of the year in the northern production regions.
- ❑ Blackberry growers in the South: give plants additional nitrogen after harvest. Check with your local Extension Service for recommendations.

Harvest and marketing

The busiest time of the year for a blackberry or raspberry grower is the harvest season. Each plant needs to be harvested every 2-3 days. For larger plantings, that means fruit is picked from some part of the field every day of the week.

- ❑ Pick blackberries when shiny black for shipping. Those that are dull black are fully ripe and suitable for PYO only.
- ❑ Pick directly into clamshells with absorbent pads, or for PYO use clean cardboard flats, take-home baskets, or sanitized re-usable containers.
- ❑ Keep harvested berries in shade and move into coolers as soon as possible to lengthen the shelf life of the fruit.
- ❑ Use forced-air precoolers for optimal removal of field heat.
- ❑ Store at 32° to 34°F and 95% relative humidity.
- ❑ Freeze excess fruit for jam, juice, or wine. ❖

USDA UPDATE

USDA NRCS EQIP Program

Raspberry & blackberry growers are always looking for a way to extend their growing season and many growers have turned to high tunnel systems as an effective method. A high tunnel system, commonly called a "hoop house," is also an increasingly popular conservation practice for farmers, and is available with financial assistance through the USDA National Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP).

In 2022, the Inflation Reduction Act (IRA) was signed into law. The IRA invests around $40 billion into existing United States Department of Agriculture (USDA) programs promoting climate smart agriculture, rural energy efficiency and reliability, forest conservation, and more. Approximately $20 billion of this investment supports USDA's conservation programs within the NRCS. This increased funding provides more opportunities for growers to receive assistance.

In October, the NRCS will announce the deadline for EQIP program application, likely due mid-November, for the 2024 funding cycle. We will include the announced deadline in the Fall Bramble newsletter, but encourage interested growers to start reviewing the requirements and get in touch with their local Farm Service Agency or NRCS office with any questions.

More information on this program and service center locator can be found at: https://www.nrcs.usda.gov/programs-initiatives/eqip-high-tunnel-initiative

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satellite tracking technology, plan efficient routes, monitor all shipments, and quickly solve any issues to maintain the schedule all while keeping farms posted with updates. They offer insurance higher than the industry standard with additional coverage available as needed.

To find out more on Reinforced Logistics and inquire about their transportation options visit: https://www.reinforcedlogistics.com/ ❖

2023 FARM BILL

Specialty Crop Producers Seek Farm Bill Support

In Washington, DC, debate on passage of the 2023 Farm Bill is progressing, with supporters of the bill looking for ways to maintain legislative gains from the 2018 Farm Bill and funding to support new programs in the Farm bill in a tight fiscal environment.

The specialty crop industry, made up of growers of fruits, vegetables, nuts, and nursery crops wants lawmakers to authorize funds for research into automation and mechanization, raise adjusted gross income thresholds that currently limit farmer eligibility for some USDA programs, promote exports, provide subsidized crop insurance tailored to specialty crops, and give greater access to conservation and disaster assistance, among other items. For more information on Farm Bill priorities visit the Specialty Crops Farm Bill Alliance web page: https://farmbillalliance.com/

Berry growers across the U.S. are wondering if their interests will be maintained, increased, or perhaps cut in the upcoming Farm Bill. A recent seminar focused on just those questions.

On June 5, 2023, Agri Pulse Communications held the "Agri-Pulse Food & Ag Issues Summit West" in Sacramento, CA. One point of interest to Bramble readers was a seminar entitled, "Outlook for Specialty Crops in the Next Farm Bill". Speaking at this event and offering insight into the future of the 2023 Farm Bill were:

- Dave Puglia, President / CEO, Western Growers
- Jamie Johansson, President, California Farm Bureau Federation
- Aubrey Bettencourt, President and CEO, Almond Alliance of California
- Ian Le May, President, California Fresh Fruit Association
- Rob Larew, president, National Farmers Union(NFU)

This panel was asked what their thoughts were on the current state of Specialty Crop interests in the 2023 Farm Bill.

Dave Puglia felt that the congress was aware of the 109 proposals from the Specialty Crops Farm Bill Alliance and his feeling was that there was no going backwards on these proposals. Dave had spoken to Senator Debbie Stabenow of Michigan, a strong proponent of specialty crops and Chairwoman of the powerful Senate Committee on Agriculture, Nutrition and Forestry about the Farm Bill and although Senator Stabenow said, "There is no new money – Don't ask!" Dave was not going to give up asking as it is his feeling that we are in early days with negotiations for the Farm Bill. His feelings were that automation and mechanization proposals were most critical in the new bill. Dave also felt that Sen. Stabenow was behind new investment especially in automation/mechanization, biologicals, research, MAP, and domestic promotion.

Jaimie Johansson of the American Farm Bureau agreed that Ag needs to ask for what it wants in the Farm Bill. He felt that production and conservation issues were vital to pass in the new Farm Bill. The debt ceiling debate with its changes to the SNAP program had been a game changer for the potential passage of the Farm Bill

on schedule. Jaimie pointed out that a bipartisan vote to pass the debt ceiling was achieved and was a positive sign for future cooperation across the aisle. He said that keeping funding for local farmers and food banks to help address hunger was important. Jaimie addressed the issue of adjusted gross income limiting the ability of specialty crop growers to apply for needed federal relief programs and urged a change in the AGI levels.

Ian Le May, President, California Fresh Fruit Association, noted that specialty crop groups had been crafting priorities for the upcoming farm bill since 2021 and giving careful consideration to all topics. He felt that the last five years, including coming through COVID, had changed how consumers view access to food and its availability after seeing empty store shelves and that concept should be used to let congress know specialty crops will not accept the status quo. Ian felt that research into automation/mechanization was not going to be helpful until there was funding to help farmers adopt the new technologies. Since many specialty crops are dependent on hand picking and there has been no move on immigration, farmers need to increase efficiency with mechanization.

Aubrey Bettencourt, President and CEO, Almond Alliance of California, felt that trade and irrigation proposals to the Farm Bill are critical. Aubrey pointed out that market access programs had not increased in the last ten years despite huge changes in the world. The world financial situation makes it essential to look for new buyers in unlikely places and federal help to do this was critical. Aubrey also pointed out that increased research in pollination and bee health was an issue that must be addressed. She stressed that farm insurance programs had been a disaster with no assistance for farmers affected by natural disasters for about a year following events.

Rob Larew, President, National Farmers Union(NFU) stressed how important it was to make sure the farm bill is written for the next five years, and that resilience will be the key word for that time frame. Rob felt that farmers would be best prepared for the future with support for resilience in the face of change. He stressed that conservation, protecting the land and dealing with climate changes, was of the utmost importance along with improving local and regional trade. Rob felt that finding new money for the farm bill proposals was a challenge, but it is not a reason for slowing down on specialty crop requests. We need to identify needs and be clear on our priorities. Rob mentioned that record pressures on the farmers bottom line should be made clear to the consumer.

When asked if they believed it would be possible to pass the Farm Bill by September of 2023 the group all offered an optimistic appraisal of the chances for passage this year citing increased bipartisanship, strong leaders in the Ag committee fighting for the passage of the bill and increased public involvement with the bill. Negatives that might impact the passage were the legislative calendar not offering enough time to implement it and the fact that the changes to the SNAP program have not yet been written up. Most speakers felt that an extension if needed would not go much beyond early in 2024 citing a risk of running into the presidential election race. ❖

North American Raspberry & Blackberry Association (NARBA)
PO Box 56587
Portland, OR 97238

Working together to promote the production and marketing of raspberries and blackberries.

SUMMER 2023

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Region 7 (represents AK, AZ, CA, CO, ID, HA, MT, NM, OR, TX, UT, WA, WY) **Darren Sinn,** ORBC, 9822 Saratoga Dr NE, Silverton, OR 97381, 503-949-1068, darren.sinn@berryfresh.com

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North American Bramble Growers Research Foundation

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