The Pecan Grower

OFFICIAL PUBLICATION OF THE GEORGIA PECAN GROWERS ASSOCIATION

Tree Activity and Energy Needs in August

Enhancing Pecan Food Safety Practices

Permit #125 Valdosta, GA

JOATZOY 2.1

THE PECAN GROWER P.O. Box 1367 Tifton, GA 31793



ORCHARD MACHINERY CORPORATION

www.ShakerMaker.com



Shockwave Lifted Sprint

SIDE-MOUNT TREE SHAKER
4.5.L Cummins 173HP turbo-diesel engine
Standard R-7 shaker head, pecan pattern
Optional 18 inch hydraulic lift system (shown)

Shockwave 3WMB

FRONT-MOUNT TREE SHAKER
4.5.L Cummins 173HP turbo-diesel engine
Standard R-3 shaker head and 10-ft boom
Optional R-4 Magnum 30-in shaker head (shown)
Optional 12 foot boom (shown)





Shockwave Catchall X

TWO-PIECE SHAKER/RECEIVER HARVESTER F3.8 Cummins Stage V turbo-diesel engine 148HP Shaker, 121HP Receiver Standard or Air-conditioned cabs



Aftershock CC-350

DUAL CHAIN CONVEYOR CART



Aftershock AR-400

SIDE-DUMP SHUTTLE



Aftershock SD-36

SIDE-DUMP ELEVATOR



Hedgehog FAMILY OF HEDGERS



Skirter HYDRAULIC <u>SKIRTER/HEDGER</u>



Brush Hog HYDRAULIC RAKE



E-Limb-inator

SHREDDER

Contact our Georgia dealers:

Flint Ag & Turf 1709A S. Slappy Blvd. Albany, GA 31701 (229) 432-7468 Walker-Rhodes Tractor Co.

912 Jernigan St. Perry, GA 31069 (478) 987-1173 The Original Shaker Maker SINCE 1961



Follow us! Facebook & Instagram @OMCshakermaker





Protect your orchard with Dodine FL Use Dodine FL as your *CORE* fungicide in your spray program this season to ensure exceptional resistance management.

Dodine FL's unique mode-of-action helps preserve the efficacy of other fungicides, allowing you to ALTERNATE SPRAYS of Dodine FL in your spray program.

Actylis has proven itself over the last 17 years as the industry leader in Dodine and its effective use on scab control and its long-lasting protection.





CALENDAR OF EVENTS

August 2023

August 10, 2023
Alabama Summer Tour
Andalusia, Alabama
Contact alpecangrowers@gmail.com to register

August 24-25, 2023
Arizona Pecan Growers Conference
Hilton DoubleTree Hotel-Tucson at Reid Park
Tucson, Arizona
Visit arizonapecan.com for more details or
Contact azpecan@gmail.com

September 2023

September 7, 2023
Georgia Pecan Growers Fall Field Day
Southeastern Fruit & Tree Nut Research Lab
21 Dunbar Road, Byron, GA
Register at georgiapecan.org or by calling
229-382-2187

September 13-14, 2023
National Pecan Shellers Annual Meeting
Austin, TX
Visit ilovepecans.org for more details

September 20-21, 2023
Alabama Pecan Growers Association Conference
ALFA/Farmers Federation Building
21332 AL-59, Robersdale, AL
Visit alpecangrowers.com for more details

September 26-27, 2023
Georgia Pecan Tour
Southern Woods Plantation, Sylvester, GA

October-December 2023

GPGA Membership Renewals, Conference Packets & Media Kit!

GPGA's Fall Field Day

September 7, 2023 USDA-ARS 21 Dunbar Rd Byron, GA 8:30 AM - 1:00 PM

> Lunch Provided: Shane's Rib Shack

Topics:

Microbial Biopesticide Approaches to Controlof Key Pecan Insect Pest

Protecting Pecans from Foodborne Diseases

Novel Approaches to Control Key Pecan Pests

Addressing Control of Key Pecan Dieseases

Improving Pecan Nutrition and Production

Special Guest: Georgia's Commissioner of Agriculture Tyler Harper



Association News

6 Editor's Letter44 A Tribute To Andy Clough

Expert Advice

- 9 What's A Pecan Tree Thinking In August
- 16 Importance of Enhancing Pecan Food Safety Practices Along The Production Chain
- 38 Pecan Visibility In Polish Retail Outlets: Healthy And Nutritious Snacks
- 40 Developing Geographic And Climate Adapted Pecan Trees
- 50 2023 Pecan Field Day At The Vidalia Onion Research Farm
- 53 Pecan Production Management Tips

Industry News

- 28 Washington Update
- 48 Pecans Highlighted At HELLO FRESH Headquarters
- 54 Oklahoma Growers Hold Conference
- 54 New OPGA Officers & Board Members Elected
- 56 Marketing Updates From APC And APPB

Editorial

53 With Sympathy - Sammie Quesada Singh, Sr.



ON THE COVER

A hot, mosquito filled June evening

at the UGA's Research Farm, Ponder Farm, outside of Tifton, GA, showcases the serene beauty of a crop in progress.

Photo By Mary Mikelyn Bruorton, GPGA









Subscribe to our e-newsletter by emailing info@georgiapecan.org check out our social media!



GEORGIA PECAN GROWERS ASSOCIATION

220 E 2nd Street, Suite A | P. O. Box 1367 Tifton, GA. 31793

Phone: 229-382-2187 | Fax: 404-393-9298

www.georgiapecan.org

GPGA STAFF

Executive Director | Editor | Advertising
Samantha McLeod • samantha@georgiapecan.org

Copy Editor | Grants Coordinator
Amy Howell • amy@georgiapecan.org

Finance

Sheila Harnage • sheila@georgiapecan.org

Communications & Events Coordinator

Mary Mikelyn Bruorton • mary@georgiapecan.org

Contributing Writers

Dr. Wojciech J. Florkowski Amy Howell Dr. David Shapiro-Ilan Kaitlyn Mason Samantha McLeod Dr. Lenny Wells Oklahoma Pecan Growers Assn American Pecan Council American Pecan Promotion Bd Jennifer J. Randall Cameron A. Bardsley Robert L. Redding, Jr. Mary Mikelyn Bruorton Andrew Sawyer Elizabeth J. Fichtner Diane Welland MS, RD

The Pecan Grower (ISSN 1044-9639) is a Production and Marketing News Magazine for pecan growers. Published every other month, (February, April, June, August, October & December), by the Board of Directors of the Georgia Pecan Growers Association, Inc., P.O. Box 1367, Tifton, Georgia 31793; (229) 382-2187. Charter subscriptions are \$20 in the United States and \$80 for foreign subscriptions each year. Single copy price is \$6.00 plus \$2.00 postage and handling, (US only). Copyright 1989. All rights reserved. Reproduction in whole or part without written permission is prohibited.

The Pecan Grower is published for the GPGA by:
natural impressions
HARLOLOVETT

P. O. Box 2211 • Tifton, GA 31793 **229.392.2713** • inchmeal@friendlycity.net

EDITOR'S LETTER



Greetings!

As the wicked August heat closes out our summer, we look forward to seeing you all for cooler days on September 7th in Byron for our Annual Fall Field Day event. This year's location returns to the USDA-ARS facility and we anticipate you will be able to take away a lot of great information and insight from the orchard tour. Please help us in planning for the event by pre-registering so that we can best prepare for food, refreshments, and in-orchard transportation. You can register online at www.georgiapecan.org or by calling our office at 229-382-2187.

We have several GPGA-sponsored trade events coming up this Fall and more to come in 2024. Please keep an eye on our Enewsletters for more information about how your farm can participate. We do try to keep these email newsletters from flooding your inbox, so you may see only 1 or 2 per week. If you are not receiving these real-time notifications, please call our office so we can get you added to our distribution list.

Finally, thank you to everyone who has jumped on board to help my staff during my time away from the office during maternity leave. I expect to return to the office in mid to late September and appreciate your patience with my staff during this time. As harvest approaches, I want to once again thank our members and our industry for seeing us through another successful year!







Savage Equipment is proud to offer the amazing lineup of sprayers and other orchard equipment built by Nelson Manufacturing. The 6800P PTO-powered Sprayer, shown above, along with the diesel-powered Super 80 and Super 92 are popular choices for pecan growers. Nelson also makes high-quality pruning towers and rugged tractor cabs (shown mounted on John Deere above).

Distributed by

SAVAGE



On the web at www.savageequipment.com. Contact us today: info@savageequipment.com. Madill, OK: 866-572-8243 | Baconton, GA: 229-787-5115 | Mesquite, NM: 575-233-2964



MasonTractor.com















Orchard-Rite.

912 Jernigan St. Perry, GA 31069 478-987-1173

Additional locations in Blue Ridge, Cumming, Hiawassee, McDonough, Norcross, and Villa Rica

EXPERT ADVICE with Dr. Lenny Wells

Extension Horticulturist, University of Georgia

What's A Pecan Tree Thinking About In August?

During this time of year, it is easy for us as growers to get caught up in simply focusing on the tasks we are doing in the orchard. But now is a good time to pause and look at things from the tree's perspective. Knowing what is going on in the pecan tree right now can help you make better decisions about your orchard management practices.

August is a busy month for pecan trees. There are a lot of things happening at once and many of these things require considerable energy from the tree. I will focus in more detail on each of these processes but the key tasks on the pecan tree's agenda in August are shell hardening, kernel filling, transition of the kernel from water to gel (and later to dough) and induction of next year's female Flowers.

Shell Hardening

Shell hardening begins in late July but the process is not completed until mid-August in many varieties. The size and thickness of the shell, which has been increasing since pollination, continues until shell hardening is complete. This process speeds up rapidly in mid-July and ceases in mid-August with shell hardening. The shuck continues to grow beyond this time but shell growth and expansion has ceased. The hardening of the shell begins at the tip or apex and progresses toward the base. From the time shell hardening begins, the process from tip to base takes about three weeks.

Monitoring of shell hardening is important because it tells you when your nuts are more susceptible to injury from shuckworm and less susceptible to scab. Prior to shell hardening shuckworm feeding will result only in the shedding of nuts. After shell hardening, shuckworm feeding may go un-noticed as the nuts remain on the tree. However, during this time, shuckworm larvae feed beneath the shuck surface, mining and destroying shuck tissue, which can prevent shuck split and result in damaged kernel quality.

Scab control is much more important prior to shell hardening -- as the nut is still growing and highly susceptible when new tissue is forming quickly. After

Continued on Page 10, See August



August, Continued from Page 9

shell hardening, the nut is no longer growing and for most varieties, you can back off from intensive spraying around mid-August. Certain highly susceptible varieties like Desirable may require an additional spray after shell hardening, especially where scab was already present.

Kernel development

The kernel itself has an outer surface known as the seed coat. After shell hardening is complete in mid-August, the liquid inside the seed coat, which has been present since the fruit was about half its full size in mid July, begins to congeal and is deposited along the inside wall of the seed coat. The layer of gel thickens rapidly and is known as the gel stage. Around the beginning of September the gel will begin to be converted to a solid, white material we often refer to as the dough stage. By the second week of September, typically this process is mostly complete. The change from gel to dough appears to be accompanied by a change from sugars to fats. In the later stage of filling, the kernels absorb sugars from the seed coat and they are converted into proteins and fat. That conversion requires considerable energy.

In early August, the amount of nitrogen (N), calcium (Ca), magnesium (Mg), potassium (K) and phosphorus (P) increases significantly per unit of nut. However, they are not pulling from the leaves or shoots at an expense to the shoots at this time because they are also being accumulated in the shoots at a rate that outpaces movement from shoots to nuts. In late August, however, there is a very rapid intake of N,P,K, and Mg into the nuts, especially so for N and K, as these nutrients are shuttled from the leaves or shoots to the nuts at a rate that begins to outpace their accumulation in the shoots. Zinc (Zn) content of the fruit increases rapidly during kernel-filling as well, with the greatest increase occurring in the kernel itself. Most of the nut's Calcium needs, however, were met prior to kernel development as the nuts were sizing in June and July.

We often hear about the importance of K to pecan kernel development -- and it is certainly important -- but it is interesting to note that, at maturity, 86% of the K in the nut is found in the shuck. In the final 30 days of fruit development, K content of the shuck increases by about

Continued on Page 12, See August

SOUTH GEORGIA

HERITAGE GROWN THROUGH INNOVATION

- Accurate
- Honest
- Committed



For all your pecan marketing needs, Give Kyle a call!

Kyle Barker 1-800-627-6630

South Georgia Pecan Company georgiapecancorp.com PO Box 5366 Valdosta, GA 31603

> Ph: 229-244-1321 Fax: 229-247-6361

• • • • • •

WECO + MULTISCAN = MORE VALUE FOR PECAN CUSTOMERS







WECO and Multiscan Technologies partner to serve the needs of the North American Pecan Market

WECO's pecan solutions now include Multiscan's unique inspection technology.

Multiscan optical sorters and other inspection systems in the US and Mexico are now sold, leased, and fully supported, by WECO's industry-leading sales and service organization.

WECO PecanTek

On a pecan cleaning line, nothing beats the WECO PecanTek at minimizing product loss while sorting the dirtiest product batches, and removing color defects and foreign materials.

Maximize line performance with less labor.

Automating the inspection of splits and cracks and other laborintensive tasks not only increases throughput, it also allows processors to meet demand and increase production in the face of intense worker shortages and associated turnover costs.

A best-in-class service organization at your disposal.

Multiscan sorters now benefit from the outstanding level of sales and service support provided to all customers throughout North America. The WECO service team is recognized within the pecan industry for its uncompromising commitment to customer satisfaction.

Learn more about how to increase your profitability with the power of WECO and Multiscan:

Contact:

Nick Lightfoot Tel: 530.601.6777 nick.l@wecotek.com

www.wecotek.com www.multiscan.eu

An expanded portfolio for a more complete solution.

The integration of WECO and Multiscan offers pecan processors and packers a complete range of solutions to address their individual requirements for product sorting criteria, capacity, and line layout configuration.

Multiscan S30P - 360° Inspection

The Multiscan S30P introduces the ability to perform a 360° inspection of every nut on an in-shell line, accurately identifying color, size, shape characteristics and structural defects like splits, cracks, and sprouts in a single pass. Capable of managing three separate sort exits, the S30P delivers the next level of automation control over your in-shell pecan sort process, resulting in higher yields and increased throughput.





August Continued from Page 10

half, while that of the shell and kernel remain the same. The higher percentage of K movement into the shuck as the nut approaches maturity may be related to its role in hydration of the shuck for the process of shuck split. Oil synthesis in the kernel occurs almost exclusively in September at the expense of the sugars found in the nut. Sugars then re-accumulate rapidly in the kernel until shuck split from sugars originating in the shuck.

In short, sugars or storage material are necessary for complete kernel development. Most of this material is transported from the leaves to the nuts during the 6-week kernel filling and maturation period, much of which occurs in August. Thus, kernel filling can represent a severe drain on the tree's carbohydrates if trees are not properly managed in August. The kernel's oil is a very concentrated material and its production requires about 2 ½ times its weight in carbohydrates. Many people hearing this information will think that heavy fertilization is the only way to prevent such a drain on the tree, but that is not the case. While the trees need adequate fertilization -- and there is nothing wrong with August fertilization -- it is also important that the tree receives adequate nutrition throughout the season.

The primary period of N uptake in pecan is in Spring and this uptake is what fuels most of the energy for growth along with that stored in the tree. August fertilization is most important when bearing a heavy crop load in order to replace some of the energy used up in the kernel filling and maturation process. Any factor which reduces these carbohydrates --- such as lack of water, inadequate fertilization, defoliation from black

aphids, mites, anthracnose, a heavy crop load, cloudy weather conditions, etc.--- can impact kernel filling, the resulting quality of the nut, and return crop.

Flower induction

Another important process going on within the tree in August is flower induction and that role in next year's crop. The pecan flowering process begins in two stages that we cannot see with the naked eye. These stages are

Continued on Page 14, See August

Micronized Flowable KOLLA Sulfur 6

Now in easy to pour 2.5 Gallon Jugs



- · Aids in chlorophyll synthesis
- Component of amino acids
- · Essential in protein formation

Contact Your Chemical Supplier



1319 US Hwy 82 West • Leesburg, GA 31763

NOW TAKING ORDERS FOR 2024



VANN FARMS PECAN NURSERY

OFFERING: -

CADDO • CAPE FEAR • CREEK • ELLIOT • KIOWA
LAKOTA • OCONEE • PAWNEE • AVALON
ELLIS • SUMNER • ZINNER







SCOTT VANN

8602 U.S. Highway 19, Baconton, Georgia vannfarms@live.com • 229-522-0442

Baconton, Georgia birthplace of the paper shell pecan industry in Georgia

August Continued from Page 12

called flower induction and flower initiation. Pistillate or female flower induction refers to the process within the plant by which various physiological cues stimulate the shoots to change from a vegetative to a reproductive state. This extremely important process takes place during August (around the time of shell hardening). Induction can be affected by pest pressure and environmental factors (sunlight, drought) and is markedly influenced by developing fruit. This development is why it is so critical for return bloom to keep the trees as stress-free as possible during the month of August.

Floral initiation occurs in early Spring of the current year and is characterized by the distinct morphological, microscopically visible changes in the bud that lead to flowering. Like induction, initiation depends on a combination of physiological and environmental factors that balance the hormones leading to initiation. In temperate species like pecan, initiation can be considerably influenced by climate (think of a late spring freeze or inade-Internal quate chill hours). conditions carbohydrate/nitrogen balance may also play a role. Carbohydrate reserves stored in the roots and shoots are utilized in the spring flush of shoot growth and in the terminally positioned female flower development.

Most of the evidence points to the conclusion that female flower induction is primarily influenced by the presence of developing fruit in the summer. Growth regulators (hormones) in the tree control fruiting on the individual shoot basis. This explains why vegetative shoots tend to return more blooms than reproductive shoots and how fruit load can be large on one side of the tree or on

SOUTHERN AG
& INSURANCE SERVICES

Committed To Serving the Farming Community Since 2001

Specializing in Crop Insurance

Mark R. Cox

229.894.7850 coxmark22@yahoo.com

God Bless Our Farmers

one branch while the rest of the tree has a light crop. Low carbohydrate reserves during the winter can cause reversion of reproductive buds to a vegetative state prior to flower initiation in the Spring (but excessive fertilization is not needed to generate adequate carbohydrate reserves). Additionally, climatic or environmental events can act to influence induction and/or initiation over a wide geographic area leading to synchronization of on and off crops for a specific region.

Orchard Management

Regarding management practices to mitigate alternate bearing, crop load management -- whether in the form of mechanical fruit thinning, mechanical hedging, or a combination of the two -- is a best practice to employ for direct alleviation of alternate bearing. In addition, all cultural practices that reduce stress on the trees and aid in maintaining appropriate carbohydrate levels in the tree (irrigation, fertilization, pest management) will help enhance flower initiation the following Spring. Timely employment of the various cultural management practices listed above -- especially in August--- is critical to consistent pecan production.



P.O. Box 5947 • Thomasville, GA 31759 www.wghamil.com

John Marbury-Albany Ga Greg Hamil-Thomasville Ga Michael Hamil-Thomasville Ga Four Generation Pecan Buyers greg@wghamil.com michael@wghamil.com

"Buyer and Seller of Inshell Pecans"

Domestic and International Shippers Greg Hamil-Cell 229-224-9988 Michael Hamil-Cell 229-224-9558 John Marbury-Cell 229-343-2481 Office-229-228-9169

Fax: 229-228-0022



No matter which way you say it, remember. . . NO ONE provides Equipment, Parts and Service like WE can!

PREPARE FOR PECAN SEASON WITH FLINT AG & TURF.
THINK FLINT FIRST FOR YOUR PECAN EQUIPMENT NEEDS.





















The Importance Of Enhancing Pecan Food Safety Practices Along the Production Chain

Cameron A. Bardsley, Research Food Technologist David Shapiro-Ilan, Research Leader USDA-ARS Fruit and Tree Nut Research Unit

utbreaks or recalls associated with foodborne pathogens such as Salmonella and pathogenic E. coli can be burdensome on food producers and growers regardless of the commodity. Along with illnesses, hospitalizations, and in extreme cases deaths, outbreaks of foodborne illness also put economic stress on particular commodities, and some firms never recover financially when implicated with an outbreak. It is estimated that food safety incidents cost the U.S. \$7 billion (Hussain & Dawson, 2013). While tree nuts were previously viewed as a low-risk commodity for microbial contamination, tree nuts including almonds, cashews, hazelnuts, pistachios, and walnuts have all been involved in outbreaks of Salmonella or E. coli O157:H7 (Harris et al., 2022). Recalls due to microbial contamination, have great financial implications on those involved as well. Pecans have been recalled over the years due to Salmonella contamination (Yada et al., 2022). While it is good that these products didn't lead to an outbreak, it is important to note the potential for product contamination. Outbreaks, and to a lesser extent recalls, have lasting effects on consumer perception of commodities, this residual perception effects all producers of that particular commodity even if they were not directly involved or responsible for the outbreak.



Along with consumer perceptions, changes in operations or regulations may be impacted by foodborne pathogen outbreaks, whether that be self-enforced by commodity groups or through mandatory federal regulations. For examples, following several Salmonella outbreaks associated with almonds, the Californian Almond Board with the USDA developed a mandatory program that required all almonds coming out of California undergo a pasteurization process that can achieve at least a 4-log reduction of Salmonella in almonds (USDA AMS, 2022b). Likewise, due to numerous outbreaks with Salmonella and pathogenic E. coli, sprouts have a specific section of guidelines and requirements for their in the Food Safety Modernization Act Produce Safety Rule (FDA, 2023). Increased reg-Continued on Page 18, See Chain











Reserve Your Quality Pecan Trees Today!

Trees Available for 2023 Taking Orders for 2024

Chula, GA (229) 382-9527 | (229) 392-4362



Avalon · Caddo · Cape Fear · Cherryle · Creek · Elliot · Forkert · Gafford Kanza · Lakota · Lipan · Mandan · McMillan · Oconee · Pawnee · Sumner · Zinner

All Sizes Available • No Deposit Required

LARGE QUANTITIES OF AVAILABLE AVAILABLE

Chain, Continued from Page 16

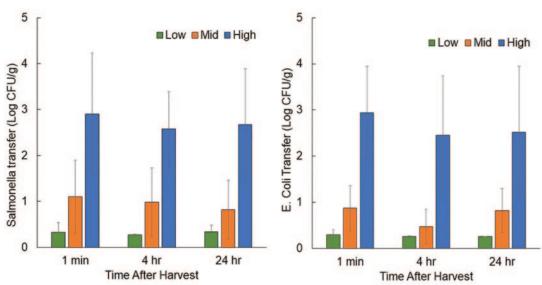
ulations and food safety requirement may be seen by some producers as a burden due to the perceived difficulty to adopt or implement these requirements or the economic burden that may be incurred from the new expectations. While pecans have never been implicated in any major multistate outbreak, it is extremely important

to maintain and enhance food safety practices to keep it that way. At every point of the supply chain foodborne pathogens could be introduced, it is the responsibility of those handling this important commodity to take the necessary steps to prevent potential contamination. In this article we will evaluate possible risks of

control measures in pecan orchards and shelling facilities.

At the farm or orchard level it is important to implement good practices that prevent the potential for contamination. While it is impossible to control all the aspects of pecan production, small incremental strate-

Continued on Page 20, See Chain



foodborne pathogen con- Figure 1. Transfer of Salmonella and E. coli from low, medium, and high concentamination and potential trated plots on to pecans following harvest.



See in action on video at: http://youtu.be/lpFJ_sIEwCw LaGrange, GA 30241

DURAND-WAYLAND

101 Durand Road Tel: 706.882.8161

HIGH PERFORMANCE SPRAYING SYSTEMS

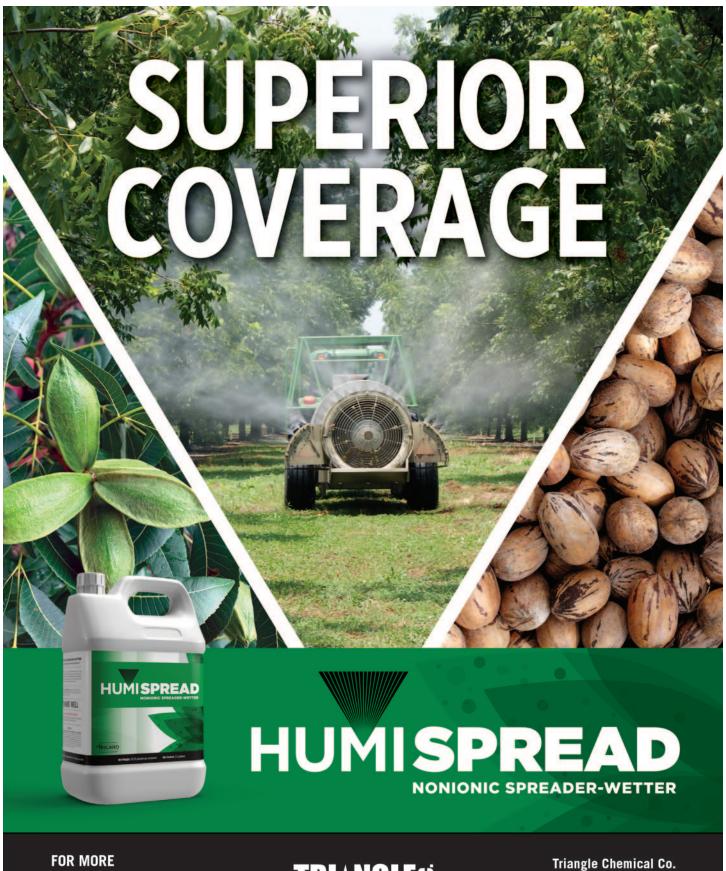
SUPERSPRAY™ 1000 WITH G6 SMARTSPRAY™

- TANK 1000 gallon stainless steel tank, full length stainless steel mechanical paddle agitation
- FAN SIZE 36" super fan, stainless steel blower housing, single speed gearbox
- PUMP Myers 2-stage centrifugal pump, 70 GPM (265L) @ operation pressure 160 PSI
- SPRAY PLUMBING all non-corrosive plumbing, brass, stainless steel or PVC
- SPRAY NOZZLES 20 single rollover ceramic nozzles per side w/ individual on/off valve and check valve on each nozzle. mounted in stainless steel manifolds
- PTO POWER Weasler CV PTO shaft
- HITCH super tracking hitch (tracking hitch shown to the right)



- AXLE 2-way adjustable height axle
- G6 2 sensor SmartSpray™ system

sales@durand-wayland.com parts@durand-wayland.com www.durand-wayland.com



FOR MORE INFORMATION CALL: 229.432.7400

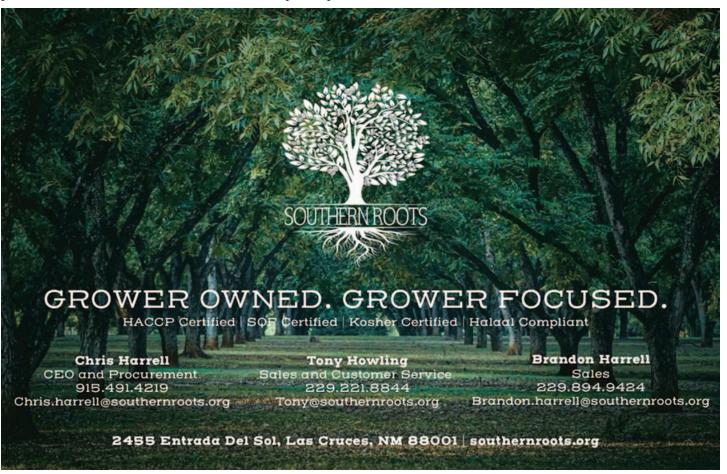
TRIANGLES
a southern tradition since 1947

Triangle Chemical Co. 400 Business Park Drive Leesburg, GA 31763

Chain, Continued from Page 18

gies can be put in place to reduce the risk of product contamination. Research conducted at the USDA-ARS Southeastern Fruit and Tree Nut Research Station (SEFTNRS) found that higher levels of non-pathogenic E. coli and attenuated Salmonella on the ground led to more transfer on to inshell pecans following harvest (Figure 1). Even when bacteria concentrations were accounted for the percent transfer was higher on high concentrations compared to the mid and low concentrations of Salmonella and E. coli, which was as high as a 70% transfer rate for the high concentrations of bacteria. This bacteria transfer onto the shell may contaminate the kernel during the shelling process if not handled properly or if the shell is compromised prior to treatment. Certain aspects may influence the presence of foodborne pathogens in the orchard prior to harvest. Previous research found that soil and inshell pecans were more likely to be contaminated with Salmonella and pathogenic E. coli if livestock were present in the field prior to harvest (Diaz et al., 2022). While co-management practices such as these can be beneficial for pecan production, there is a risk associated with this practice. The addition of manure has been shown to increase the survival of foodborne pathogens in agricultural soils (Bardsley et al., 2021). Programs such as the USDA Good Agricultural Practices & Good Handling Practices audit program requires that untreated manure (manure that has not gone through composting or a similar treatment process) needs to be applied at a minimum of 120 days prior to harvest (USDA, 2022a). Along the same lines, if animals are grazing in orchards, then removing them at least 4 months prior to harvesting pecans should be considered to reduce risk. Previous research has found that flooding events have an increased presence of foodborne pathogens in the soil (Strawn et al., 2013). The Produce Safety Alliance has provided the recommendation of at least 60 days between flooding and replanting of harvestable food crops (2018). While this doesn't directly apply to pecans in terms of replanting, it can be considered for guidance for when pecans should be harvested after an extreme flooding event to prevent contamination.

Continued on Page 22, See Chain



VTWET-ABLE

Powered by Trans-Sieve & Protection Technology

Non-ionic Surfactant for Vines and Trees

- Maximum Spreading and Wetting Agent
- Powerful Penetrant and Retention Aid
- Enhances the Efficacy of Agricultural Crop Protection Products, Nutrients and Growth Regulators
- Encapsulates Herbicides, Insecticides and Fungicides Preventing UV Decomposition
- Creates a Film for Persistence on Foliage Lengthening Residual Benefit

ALBIT

Improves Plant Growth and Stress Tolerance

Albit is a Biopolymer for the Protection of Crops Against Natural and Chemical Stresses Amended with Plant Nutrients N, P, K, Mg and S.

- Improves Efficacy of Nutrition Spray
- Encourages Pollination and Nut Set
- Reduces Nut Drop
- Enhances Fertilizer Uptake
- Promotes Plant Health and Vigor

TRI-ABL

ABLE AG SOLUTIONS

Nature and Technology for Higher Yields

www.ableagsolutions.com 850.766.6489

KARB-ABLE

Powered by Trans-Sieve & Protection Technology®

Potassium Bicarbonate - 85%

- A Broad Spectrum Foliar Fungicide
- Multi-site Action with Preventative and Curative Benefits
- Exempt From Residue Interval
- Controls Pecan Scab, Leaf Spot, Anthracnose, and Powdery Mildew
- · Fully Registered by the EPA

RELI-ABLE

Powered by Trans-Sieve & Protection Technology®

A Soluble Liquid Fertilizer for Crops in Need of Plant Nutrients During Critical Phenological Growth Stages to Improve Plant Growth and Stress Tolerance.

- Enhances Photosynthesis, Pollination and Nut Set
- · Improves Water Use and Efficiency
- Creates a Healthier Crop with a Cumulative Action
- Reduces Nut Drop
- Promotes Fertilizer Uptake

Chain, Continued from Page 20

While taking every measure to mitigate risk of contamination, there are instances when contamination may occur. This shows the importance of down-stream actions being taken avoid crosscontamination of pecans and pecan kernels and poten-

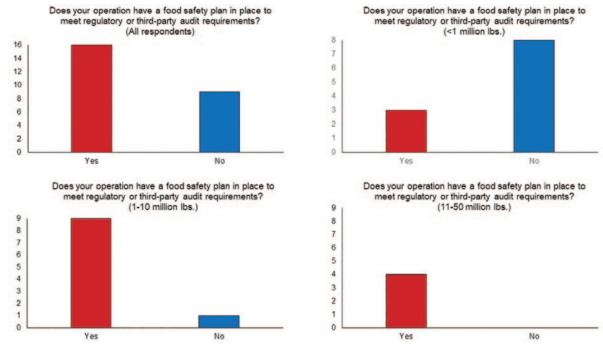


Figure 2. Pecan shellers with food safety plans separated by production sizes.

tial treatments to remove pathogens that may be present. At the shelling level, practices may be in place to reduce or eliminate pathogens on the surface of inshell pecans. These processes generally include a hot water sterilization technique for shellers who have this type of equipment. In a survey recently conducted by the USDA-ARS SEFTNRS and the University of Georgia, smaller pecan shelling operations (<1 million lbs. of pecans shelled annually) were less likely to have a food safety plan in place compared to medium (1-10 million lbs. of pecans shelled annually) and large (10-50 million lbs. of pecans shelled annually) pecan shelling operations (Figure 2). This disparity is likely due to the nature of third-party audits required to do business with large retailers or food producers which are not often conducted by smaller shellers. Likewise based on this survey, smaller shellers were less likely to use hot water sterilization techniques compared to medium and large shellers but utilize sanitizers in their conditioning water as a control mechanism. Implementing a hot water sterilization system can be costly and difficult to implement in some of these operations which is why a sanitizer alternative is available. This in no way reflects poorly on small scall shelling operations and their food safety practices but provides insight into the variation between

shellers of different size and scope.

In order to prevent potential cross contamination in conditioning and floating systems it is important that

Continued on Page 24, See Chain



22 The Pecan Grower





ADVANCED CONTROL OF PECAN SCAB & ANTHRACNOSE

THE ONLY ONE!

KPHITE 7LP systemic Fungicide Bactericide is the only Phosphite fully registered by the EPA. A unique molecule formulated through our patented process, KPHITE 7LP provides proven disease control and is systemically active in both the xylem and phloem.

Trusted by growers and proven through independent trials, KPHITE 7LP is the premiere product to fight diseases like pecan scab and anthracnose.



Gary Veal

Technical Sales Agronomist GaryV@plantfoodsystems.com 229-425-1407



The patented "7LP" molecule means

a stronger, longer-lasting disease

and bacteria fighting phosphite.

800-343-7775 • P.O. BOX 775 • ZELLWOOD, FL 32798 • PlantFoodSystems.com

K-PHITE® 7LP is a registered trademark of Plant Food Systems

Chain, Continued from Page 22

sanitizers are maintained at adequate levels throughout the process. The Oklahoma State Department of Health requires that if an adequate heat treatment for pecans is not used, that an immersion process of 1000 ppm and 200 ppm chlorine or equivalent sanitizer be used for inshell pecans and flotation processes respectively (Mackey et al., 2017). From our survey, the majority of the shellers using sanitizers in their conditioning water use a chlorine-based sanitizer (e.g. calcium hypochlorite, chlorine dioxide, sodium hypochlorite). While chlorine may be effective at reducing foodborne pathogens and preventing cross contamination in wash water, it has negative qualities that make it difficult to maintain efficacy and potentially harmful to employees (Shen et al., 2018). If handled and monitored carefully, chlorine-based sanitizers are an effective option though other sanitizers such as ozone, peracetic acid, and lactic

Figure 3. Cold plasma treatment on pecan kernels to reduce pathogens.

acid have been adopted in other agricultural commodities such as apples, potatoes, and tomatoes as effective alternatives. Further research is needed to adequately assess these sanitizers in pecan shelling environments.

While adequately treating incoming in-shell pecans to prevent cross-contamination and eliminate any potential pathogens is important, it is also critical to ensure that further pecan kernel contamination in the shelling, storage, and packaging process is prevented. Generally, there are two ways to reduce contamination risk in food production facilities; good sanitation programs or product treatment that will adequately reduce pathogen levels on or in the food. In terms of controlling potential contamination, no treatment is as effective as having a good overall sanitation program in place. Based on the survey results, most pecan shelling operations have daily cleaning and sanitation procedures in place. There are few pecan treatments that are widely utilized following the shelling treatment. From the survey only 3 of the 25 responses said they treat pecans with something other than the hot water treatment. Continued on Page 26, See Chain

WE KEEP YOU GROWING...

CROP INSURANCE SPECIALISTS

With over 40 years of industry experience, we take pride in researching and implementing the latest in technology and risk management services for our clients. We work to keep your operation growing whenever disaster strikes.

PROTECTING

YOUR

VALUABLE

ASSETS

478.220.5969 - WWW.CARDENINSURANCE.COM - 888.296.7533



Dear Growers,
We would like to
thank you for your continued
trust in Georgia Pecan Nursery.
We are taking orders for trees
to be picked up or shipped
Q4 2023 and into 2024. If we can
be of assistance with your planning,
planting or nursery tree needs,
please give us a call!
From our farm to yours,
thank you!

Jesse Bentley

Contact: Judson Brannen 912-531-5248 judbrannen@gmail.com

Or Jesse Bentley
678-485-0658
georgiapecantrees@gmail.com

GEORGIA

PECAN NURSERY



Quality 3-Year Root System! 1-Year Top!

CALL TODAY TO SECURE YOUR ORDER!

Varieties Available

Avalon	Ellis	Sumner
Caddo	Huffman	Tom
Cape Fear	Kalos	Whiddon
Cherryle Creek	Kiowa Lakota	Wichita Western
Elliott	Pawnee	

All varieties and sizes available with cross-country semi-load shipping available!

www.georgiapecantrees.com

Chain, Continued from Page 24

Those that answered yes said that propylene oxide was the other treatment that was used for pecans in their operation. Propylene oxide can be difficult to manage and often requires additional facilities and equipment. For these reasons, alternative treatments would be helpful not only for targeting foodborne pathogens but also increasing shelf life by reducing spoilage organisms. Treatments such as pulsed UV light, cold plasma (depicted in Figure 3), and edible coatings have promising potential but further research is needed to determine their effectiveness at reducing pathogen levels while still maintaining pecan kernel quality, texture, color, and taste. Likewise, the ease of implementation of these potential treatments also needs to be evaluated.

When approaching food safety operations there are many things to consider. Many producers ask themselves questions like these: how much time will this take? How much will it cost to make these changes? These are valid questions to consider and should be

noted. It also may be difficult to know where to start when setting up a food safety program or evaluating a current food safety program. One of the best ways to start this process is by first assessing the risks associated with your operation whether that be in an orchard or in a shelling facility. Once risks have been assessed, those with the highest likelihood to cause a contamination event can be identified and methods to reduce those risks can be determined. This exercise will provide valuable insights into ways to implement food safety practices. Implementing food safety practices regardless of where in the supply chain (e.g., growers, sheller, distributor, retailer), is advantageous for the industry as whole.











Proven to be the best option for pecan cleaning and sorting equipment worldwide.



BERGEN AG INNOVATIONS INC.

www.bergenag.com

4 432 - 788 - 4590

6915 - 710 - 9997



By Robert L. Redding, Jr., The Redding Firm

The U.S. House Appropriations Committee approved the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations bill in a 34 to 27 vote. The legislation provides a total of \$25.313 billion for programs under the jurisdiction of the Subcommittee, \$532 million (2.1%) below the FY23 enacted level and \$3.622 billion (12.5%) below the FY24 President's Budget Request.

Included in the bill are pecan provisions proposed by Agriculture Subcommittee Ranking Member Sanford Bishop (GA-02) and supported by the pecan industry. These National Pecan Federation (NPF) supported research initiatives, pecan processing and pecan genetic research, are in their fourth year of funding. Total funding for Fiscal Year 2023 was \$4 million each for pecan processing and pecan genetic research projects.

For Fiscal Year 2024, total proposed funding is \$4.5 million for pecan processing research and \$4.5 million for pecan genetic research.

Additionally, The Committee expects NASS to continue its ongoing activities at the frequency levels assumed in fiscal year 2023, including barley acreage and production estimates; the Bee and Honey Program; the Chemical Use Data Series; the Floriculture Crops Report; and Fruit and Vegetable Reports, including in-season forecasts for noncitrus fruit and tree nut crops such as pecans.

The U.S. House Appropriations Committee is in the process of approving all 12 appropriations bills, which will then go to the full chamber for a vote. Current government funding expires on October 1, 2023.

Continued on Page 30, See Update





PECAN SHELLING'S MOST EXTENSIVE PRODUCT LINE

From In-Shell Sizers to Inspection Tables, our product line includes material handling and specialized pecan shelling machines for every process.

We have the experience to help you get started processing pecans or improve your existing processing facility.





modern electronics & equipment, inc.



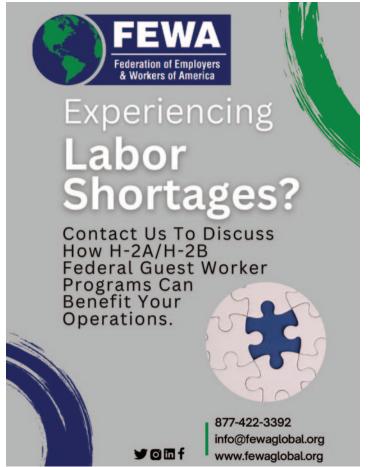
Update, Continued from Page 28

CBO Releases Farm Bill Baseline

The Congressional Budget Office (CBO) released its updated Baseline for Farm Programs on May 12. This baseline identifies expected outlays for farm program spending over the next 10 years and indicates program spending available to the U.S. Congress as they craft the 2023 Farm Bill.

According to CBO, the 2023 Farm Bill could be the first trillion-dollar Farm Bill, with expected costs of \$1.51 trillion over 10 years. This estimate is a \$31.5 billion increase over the February 2023 Farm Bill Baseline estimate from CBO. Of this \$1.51 trillion, 81.1 percent of the cost will be for the Supplemental Nutrition Assistance Program (SNAP), while the other 18.9 percent will be split between crop insurance, commodity programs, conservation, and other programs.

In comparison, the 2018 Farm Bill was estimated to cost \$867 billion at the time of enactment. Overall, 77 percent went to SNAP, 9 percent to crop insurance, 7 percent to conservation, and 7 percent to commodity programs.



The May 2023 CBO baseline is widely expected to be the 2023 Farm Bill scoring baseline – meaning any proposed policy modifications and the impact on the U.S. deficit will be measured against this baseline. According to U.S. Senate Agriculture Committee Chairwoman Debbie Stabenow, there is no new money for the upcoming Farm Bill, meaning any funding increases for programs are going to require taking money from somewhere else in the bill.

In comments to reporters, Chairwoman Stabenow stated, "We have the baseline, but that's it. We have been asking both in the House and Senate for additional dollars from the Budget Committee. Even a few billion more would have been very helpful. But instead, we really lost all the flexibility that we thought we had."

In a May 7 editorial for the Washington Post titled "Without the Farm Bill, Very Few American Farmers Could Survive" U.S. Senate Agriculture Ranking Member John Boozman voiced support for protecting the farm bill's risk management tools. Senator Boozman stated, "The average Agriculture Department loan recip— Continued on Page 34, See Updaate



1781 Hwy 78 • Monroe, Georgia, 30655



Contact

Robby Coker or Chris Coker

Phone - 770-207-6486

Fax - 770-207-4403

Toll Free - 1-888-280-7073

30 The Pecan Grower



















Founded in 1947, Tidewater Equipment is the Southeastern United States' premier heavy equipment company. With an exceptional parts and service department and an extensive used equipment inventory, Tidewater Equipment is able to serve all sizes and types of operations.

Stop by you local Tidewater Dealer today!



TIDEWATER AG & CONSTRUCTION EQUIPMENT COMPANY

ENTERPRISE, ALABAMA
LIVE OAK, FLORIDA
GEORGIA LOCATIONS: BROOKLET, BYRON
CAMILLA, PINEHURST, TIFTON, SMITHVILLE
WWW.TIDEWATEREQUIP.COM



Find us on the web at www.savageequipment.com. Madill, OK, 866-572-8243 | Baconton, GA 2



No matter the time of year, it's the "Season of Savage" in the pecan orchard, the cleaning plant and the processing facility. Travel through pecan country and you'll find Savage machines hard at work making life a little easier for pecan folks from January through December from Augusta to Australia. For over half a century, the Savage name has been a respected leader in the pecan business. We look forward to hearing from you and providing the equipment to help make your pecan business a huge success.

Email or call us today, info@savageequipment.com. 29-787-5115 | Mesquite, NM 575-233-2964

Update, Continued from Page 30

ient will borrow \$300,000 annually to raise crops or livestock for an average rate of return of less than 2 percent — a proposition few would accept. Add in geopolitical risks, pandemics, natural disasters, labor shortages and stagnant trade opportunities, and the value proposition feels dismal, underscoring the importance of the farm safety net for those who feed, fuel, and clothe everyone in the United States."

Chairman Thompson and Ranking Member Scott Announce Bipartisan AG Labor Working Group

House Committee on Agriculture Chairman Glenn "GT" Thompson (PA-15) and Ranking Member David Scott (GA-13) released the following joint statement after announcing the formation of the bipartisan Agricultural Labor Working Group, focusing on the workforce issues faced by the nation's agricultural producers: "The Committee on Agriculture has heard loud and clear from producers across the nation that one of the biggest challenges confronting the agriculture industry

is a lack of reliable labor. Though not directly in our committee's jurisdiction, we have a responsibility to be a voice in Congress on the issues and policies impacting farmers and ranchers. This is a complex problem that deserves the focused attention of the Members who hear from producers every day rather than the partisan grand-standing that has plagued these efforts in the past." Members of the working group have been selected from current Committee members and aim to represent every sector and geographical region of American agriculture. Congressmen Rick Crawford (AR-01) and Don Davis (NC-01) will co-chair the working group. The working group will:

- Seek input from stakeholders, employers, and workers, particularly emphasizing the H-2A visa program for nonimmigrant agricultural workers;
- Produce an interim report detailing the program's shortcomings and the impacts on food security, and;
- File a final report with recommendations to address the flaws within the program.

Continued on Page 36, See Update





HEALTHY, HIGH-YIELDING CROPS START FROM THE GROUND UP

Setting new standards in maximum nutrient efficiency, PECAN PLUS Performance Program delivers a proven portfolio of products that powers-up pecans while stewarding the environment with ultra-low use rates.

Performance Advantages

- · Maximizes Nutrient Efficiency
- · Stimulates Root Growth
- · Enhances Soil Structure
- Improves Stress Tolerance







rwgriffin.com

AGRICULTURAL LABOR WORKING GROUP MEMBERSHIP

REPUBLICANS

Rep. Rick Crawford, Co-Chair (AR-01)
Rep. Lori Chavez-DeRemer (OR-05)
Rep. Monica De La Cruz (TX-15)
Rep. Doug LaMalfa (CA-01)
Rep. Nick Langworthy (NY-23)
Rep. David Rouzer (NC-07)
Rep. Derrick Van Orden (WI-03)

DEMOCRATS

Rep. Don Davis, Co-Chair (NC-01)
Rep. Yadira Caraveo (CO-08)
Rep. Salud Carbajal (CA-24)
Rep. Jim Costa (CA-21)
Rep. Jasmine Crockett (TX-30)
Rep. Darren Soto (FL-09)
Rep. Gabe Vasquez (NM-02)

India Lifts Tariffs on U.S. Almonds, Walnuts, and Apples

World Trade Organization (WTO) disputes between the United States and India regarding retaliatory tariffs on U.S. almonds, walnuts, and apples have concluded, resulting in a 20 percent reduction in tariffs for these products. This tariff reduction is a result of extensive negotiations between U.S. Trade Representative Katherine Tai and the Republic of India. Despite the 20 percent reduction, tariffs for imports of these products to India remain at 20 percent.

On February 1, the India Ministry of Finance released their 2023 Union Budget and updates to custom duties, which included a 70 percent reduction in the input tariff for pecans, from 100 percent to 30 percent. This was a significant positive change for the pecan industry that opens the U.S. pecan export market to India.

FLORY 860



HIGH CAPACITY AND LOW DUST FLORY 860 PECAN HARVESTER

A large, low-speed fan, efficient cleaning system, standard Paddle Sweeps and Hi-Clearance allows it to handle large crops with less dust and wear.



Low Velocity, High Capacity Fan with Hinged Cover and Other Hinged Shields for Easy Access



Bar Chain for Hi-Capacity Cleaning and Long Life



Hydraulic Adjustable Hitch - Standard



GoFlory.com

Flory Dealers In Your Area: TIDEWATER AG EQUIPMENT CO., LLC



- Byron, GA Brooklet, GA Camilla, GA •
- Pinehurst, GA Smithville, GA Tifton, GA •

CLOUGH PECAN COMPANY "Home of the Excel Pecan"



Five generations of Cloughs have built the Clough Pecan Company in Blackshear, Georgia into a multi-faceted pecan operation: pecan nursery, pecan warehouse/buying point, pecan cleaning plant, and pecan orchards.

Inventory still available! We can provide additional varieties, tree protectors and custom orders! We are now taking orders for 2023! Give us a call TODAY!

Andy Clough, Owner (912) 288-4895 Chris Clough, Vice President (912) 288-1947 Clough Pecan Office (912) 449-4585 www.cloughpecan.com 3417 Highway 84 W, Blackshear, Georgia 31516

Varieties

We Offer

Avalon Caddo Cape Fear Creek **Eclipse** Elliot Ellis Excel Lakota McMillan Oconee Pawnee Sumner Zinner

Pecan Visibility In Polish Retail Outlets: Healthy And Nutritious Snacks

Wojciech J. Florkowski, University of Georgia, Griffin Campus

ree nuts are popular in Poland. However, pecans are a relatively new item and still not commonly known to consumers. In-shell and shelled pecans have been available in many retail stores during the Christmas-New Year season. In-shell pecans are typically displayed with other tree nuts such as walnuts and hazelnuts, and can be of domestic origin or imported. In the past, Brazil nuts were also available but not in the past few years. Shelled pecans have been available in retail stores of various formats. Small grocery or specialized food stores had pecans available and often placed in a health food or natural food section. Supermarkets place it in a section where they sell other shelled tree nuts, but also in sections of health foods and organic/natural products. Shelled but raw tree nuts fit that category and are recognized as such by Polish consumers. A typical package is small and contains no more than 100g (3.53 oz) of shelled pecans. The placement of pecans in a store, the small package size, and displays in-shell pecans during the holiday season reflects special place and much higher price of pecans than that of domestic tree nuts.

The most recent examples of pecans and pecancontaining healthy snacks are displayed on the photograph on the next page. The package on the left side of the photo contains raw pecan halves. The package

Pecans in Tins Sell

We are your one stop shop for all your tin needs including tins, liners/dividers, padded tops, heat shrink bands, and reshipper boxes.

Call us foday...
1.800.644.8856 holidaytins.com

Holiday Tins
& Containers

holidaytins.com
1800.644.8856

shows graphics indicating the product is natural. The statement in the upper right-hand corner of the pack encourages the consumer to "take it for the road" implying the product can be a snack. Snacking has grown rapidly worldwide and growth in snacking is observed in Poland, especially among the young, urban segment of the population.

The bar on the right of the photo contains pecans as an ingredient. The caption on the package includes a message that implies the snack is energy-dense. It also lists pecans, maple syrup, and sea salt – all implying natural and healthy ingredients. Such a message is also communicated by listing magnesium, manganese, and copper with their chemical indicators on the front side of the bar. The full list of ingredients, in small print, names almonds as the main ingredient and lists

Continued on Page 39, See Snacks



Snacks, Continued from Page 38



Two different products from the organic/natural and healthy snack section in a supermarket of a major chain in May in Gdańsk, Poland.

Photo: M. A. Florkowska

pecans as accounting for 14% of the content by weight. The back side of the packaging contains another slogan directed at the consumer, which can be translated as "act positively", and reflects the broader social role of, presumably, those who eat healthy and natural products. The price of the 40-gram (1.41 oz) bar was well above one US dollar in local currency.

The presence of pecans in retail outlets in Poland includes raw shelled pecans and foods containing pecans. Pecan's high price is likely behind special positioning of the products as natural and healthy because other tree nuts are available at, generally, lower prices. The important emerging trend is decoupling the sale of pecans only during the Christmas-New Year period, which traditionally involves purchase and consumption of tree nuts. The trend is driven by consumers seeking wholesome snacks, allowing the manufacturers to offer small size items and shifting consumer attention away from the relatively high price. The recent two years characterized by an elevated price inflation may have slowed the growth of the market, but did not prevent the industry from innovating in the broad category of snacks.



Full Service, Customer Focused Nursery selling Top Quality, Healthy & Prolific Pecan Trees

NOW TAKING ORDERS 2023-2024

We Offer:

- · Pecan Tree Financing
- 200,000 + Trees Annually
- Discounts On Large Orders
- Large trees readily available
- Min. 2-year root system, 1-year top

Popular Varieties Available:

Avalon Kiowa
Caddo Lakota
Creek Oconee
Elliot Pawnee
Ellis

CONTACT US TODAY!

Tim Brown

Phone: (941) 266-6691 | Office: (229) 384-6957 Email: tbrown@apollopecannursery.org www.apollopecannursery.com



Developing Geographic And Climate Adapted Pecan Trees

Jennifer J. Randall¹, Kaitlyn Mason¹, and Elizabeth J. Fichtner²
¹Entomology, Plant Pathology, and Weed Science, New Mexico State University; ²UCCE Orchard Systems Advisor Tulare and Kings Counties, University of California Agriculture and National Resources.

he United States is a main producer in the global pecan market, with domestic production totaling an estimated 275 million pounds in 2022. Challenges in pecan cultivation are nothing new as growers across the country tackle diverse disease and insect pressures along with abiotic stresses. In the southeast region of the US, management of scab disease is a key issue, whereas water insecurity, salinity, and abiotic stresses may impose challenges unique to growers in the southwest region and California. Aphid management is a top priority for growers nationwide as regulatory issues limit insecticide availability and growers strive to mitigate the development of insecticide resistance in aphid populations. Pest and disease management practices necessitate multiple fungicide and insecticide applications per year increasing the cost of pecan production for growers. In recent years, climate extremes have im-

posed pressures across all geographic growing-regions of pecan, further exacerbating maladaptive traits such as budbreak timing, dormant season hardiness, and vivipary.

In 2016, a multi-state and international interdisciplinary scientific team formed and began foundational genetic discovery on pecan after being funded by the USDA NIFA Specialty Crop Research Initiative grant. The collaborative effort by the team was successful and resulted in large advances in pecan research that with the team seeking continued support.

In September 2022, the team composed of researchers from New Mexico State University (NMSU), Texas A&M, University of Georgia, HudsonAlpha Institute for Biotechnology, Oklahoma State University, University of Arizona, University of California, University of Tokyo, and three USDA units: Southeast Food and Tree Nut in Byron, Georgia, USDA Southern Regional Research Center in New Orleans, Louisiana, and USDA ARS Plains Pecan Breeding and Genetics in College Station, Texas) received a USDA NIFA Specialty Crop Research Initiative grant to continue their research.

The USDA NIFA grant, led by Jennifer Randall, Professor in EPPWS and Director of the Molecular Biology and Interdisciplinary Life Sciences Graduate Program at New Mexico State University, is entitled "Trees for the future: Coordinated development of genetic resources and tools to accelerate breeding of geographic and climate adapted pecan trees". The grant is recog-

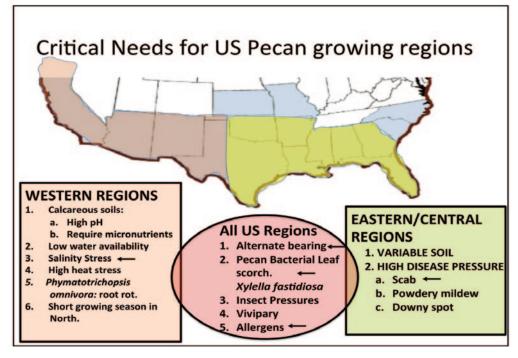


Figure 1. Critical needs for Pecan Growing Regions

Trees, Continued from Page 40

nized by USDA as a 'Center of Excellence' and is funded as a continual grant with the first two years funding of \$3,999,860 with a total of \$8,045,985 for the four years. In addition, an advisory board representing the pecan industry was established and include Buck Paulk (Georgia), Chad Selman (Oklahoma), Dr. LJ Grauke (Texas), Rafael Rovirosa (New Mexico), Deborah Walden Ralls (Arizona), Mark Cook (Arizona), and Karlene Hanf (California). The researchers' top objective is to leverage pecan genetics to breed pecan trees for climate and geographic adaptation.

The genetic diversity of pecan that spans the native region is the foundational resource for breeders to improve nut production across the broad climatic range of pecan cultivation. There are currently three USDA sites that hold representative pecan tree genetics and these include: the USDA-ARS National Collection of Genetic Resources for Pecans and Hickories (NCGR) (Brownwood and College Station, TX) and USDA-ARS SEFTNL in Byron, GA with pecan cultivars (accessions

Continued on Page 42, See Trees





Now You Can Use A Bulk Superbag Without Worrying About Mold, Mildew, or PRICE!

Vented Bulk Superbags

Meets The New NPSA Container Standards

Vented 4 Sides & Bottom For Maximum Air Flow!

Pecan Bags

At Gulf Coast Bag, we stock a variety of textile bags and packaging for agricultural use. We offer several types of pecan bags, including bulk superbags, mesh, polypropylene and burlap. All bags are in stock and available for immediate shipment.

VENTED BULK SUPERBAGS

- 1500#, 2000#, 3000# sizes
- Increased venting for improved airflow



- Prevent Mold & Mildew
- Printed: "FOR PECANS ONLY"

PRINTED MESH PECAN BAGS

- Stock Printed
- 3 lb., 5 lb., 10 lb., 50 lb. sizes
- High quality mesh w/drawtape closure



POLYPROPYLENE AND BURLAP BAGS

- 25-100 lb. sizes
- Sewing Machines Sales-Parts-Thread
- Hand sewing needles



and you can count on dependability, strength, and performance from our pecan bags.

Gulf Coast Bag, Inc.

You can count on top notch service and attention to your needs from our staff

TEL: (281) 556-8500

4422 West 12th Street Houston, Texas 77055 Email:gulfcoast@gcbag.net

Trees, Continued from Page 41

grafted onto pecan seedling rootstocks), provenance seedlings growing on their own roots, grown from seed collected from the native range, and related species collections. All three populations represent invaluable genetic variation libraries and experimental resources to test for effects of variable environmental conditions.

This collaborative project hopes to define genetic markers associated with desirable traits to develop genome-informed breeding methods that will be impl3mented by breeders and producers and greatly re-

Continued on Page 40, See Trees

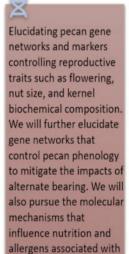


Leveraging pecan genetics towards breeding pecan trees for climate adaptation. Historic adaptation to climates from southern Mexico to Illinois has shaped the genetic diversity of native pecan. We will generate molecular markers that predict suites of adaptive traits to accelerate breeding for both scionand rootstock-related traits.



Describing physiological differences of water relations among pecan genotypes to improve water use efficiency. Water is a precious resource in all US pecan growing regions. We will probe the genetic basis of rootstock and scion water-use efficiency, and salinity tolerance to generate molecular targets for breeding under stressful environmental conditions

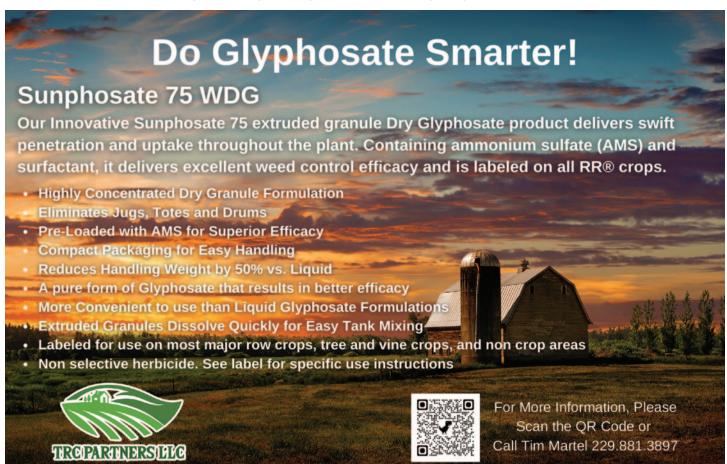
Characterizing interactions of pecan trees with beneficial and detrimental organisms for improved tree health, reduced pesticide application, and increased production. We will experimentally manipulate and evaluate host performance, microbiome diversity, and pest and pathogen damage to dissect the genetic basis of pecan yield in the face of these pressures.



pecan nutmeats.

Leveraging pecan genetics for determining markers for pecan tree architecture and growth. Tree architecture and phenology represent two crucial determinants of orchard productivity. We will examine the genetic control of canopy size, density, and structure. Smaller tree canopies are desired, and we will evaluate pecans and other Carva for the genetics controlling tree vigor and height.

Figure 2. Objectives for USDA 'Trees of the future' Grant



Trees, Continued from Page 42

duce the time required for development of new pecan trees. Specifically, genetic markers that predict suites of adaptive traits to accelerate breeding for both scionand rootstock-related traits. The data collected will allow for the development of vital genetic tools necessary for increasing our understanding of regional and climate adaptation, promoting resource conservation, and selecting improved cultivars/rootstocks for all major U.S. pecan regions.

for today but 50 and 100 years from now. A simulator with current climate patterns and predictive patterns will be built to allow growers and increase education of the genetics that will be best adapted for specific regions. In addition, the scientific results from this effort will be used in a National Education Campaign to educate the public on the importance of plant genetics and changing climates using interactive medias. Research updates will be available on pecantoolbox.nmsu.edu.

The researchers plan to specifically address key traits necessary for geographical adaptation of pecan such as timing of bud break. rootstockscion interactions, salinity tolerance, microbiome composition, disease resistance, insect tolerance, and size options. control The data will be used to predict the pecan genetics that will be needed in specific geographical areas not only

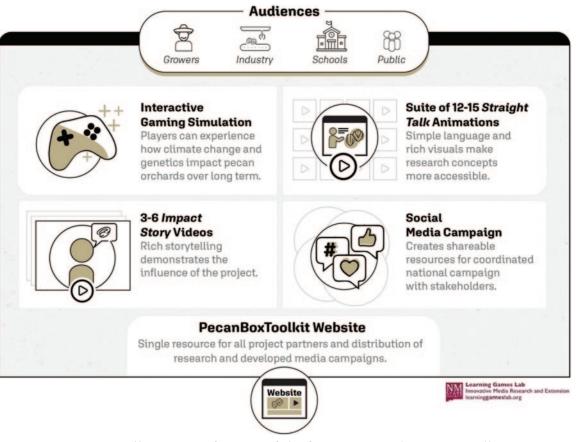


Figure 3. Illustration of 'Trees of the future outreach. Pecan Toolbox: pecantoolbox.nmsu.edu



Register NOW

GPGA Fall Field Day

September 7, 2023

georgiapecan.org

A Tribute To Andy Clough

Compiled by Amy Howell, Copy Editor, The Pecan Grower Magazine

ust as we were closing out the June issue of The Pecan Grower, we received the tragic news of the passing of one of our own. Andrew Lee "Andy" Clough Jr. passed away peacefully Saturday morning, May 27, 2023, at Memorial Satilla Health in Waycross, Georgia, surrounded by his family. He was 81 and a lifelong resident of Pierce County.

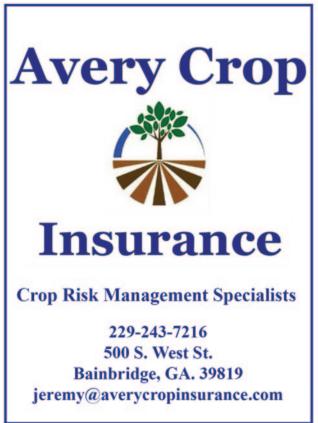
Due to printing deadlines, we were unable to include Andy's obituary information in that issue at that time; however, we were able to talk to some of Andy's colleagues and pay tribute to this pecan trailblazer now. He deserves nothing less.

As written in his obituary, "Andy graduated from Blackshear High School in 1960 and attended Georgia Tech for two years before going to work for Lockheed Martin as an engineer. After a short time, he was called home to the family farm. He spent his life as a devoted steward to the land and trees. He was a 4th generation farmer and raised the 5th and 6th generation to appreciate the farm life. He was the longtime owner and operator of Clough Pecan Company. Starting with an eight-acre field, he grew to be the largest pecan grower in Pierce County. He became one of the most knowledgeable pecan farmers in the industry and developed and patented the Excel and Eclipse Pecans. He has passed his expertise down to his children and grandchildren. He was awarded the Lifetime Achievement Award from the Georgia Pecan Growers Association and was named the 2015 Pierce County Chamber of Commerce Farmer of the Year."

In addition to his success as a farmer and businessman, Andy's family was his pride and joy. This accomplishment was evident in the way he enjoyed spending time with all his family and bragging about them. He leaves behind his beloved wife Shirley, along with 8 children, 21 grandchildren and 10 great grandchildren. He was preceded in death by his son, Jerry Tanner, and his brother and a brother-in-law. He is survived by a sis-

Continued on Page 45, See Tribute





Tribute, Continued from Page 44

ter and sister-in-law, along with several nieces, nephews and other family members. He was a lifetime member of First Baptist Church of Blackshear and attended the MISFITS Sunday school class. He enjoyed hunting, fishing and helping his community. His passing is a great loss to his community and to our Georgia Pecan industry. He will be greatly missed.

Andy Clough is one of the first pecan growers outside the Albany area I met when I started this job as UGA Pecan Specialist. I had been a county agent in Dougherty County for a couple years and had come to know the growers there but had not met many growers in other parts of the state. At the time, the 'Excel' cultivar was just beginning to see its first burst of popularity. So of course, Andy wanted me to visit his farm to see the mother 'Excel' tree and take a look at his orchard plantings and nursery.

One thing anyone new to the pecan business will quickly realize is that it is full of interesting individuals and Andy Clough was one of its foremost characters. I probably knew Andy for 5 years before I ever saw him without sunglasses, night or day. He was as comfortable in his own skin as anyone I've ever met and wasn't going to change for anybody. That gravelly voice just seemed to rumble up from somewhere under that mustache that was part of his persona. Andy didn't beat around the bush and was direct with his questions and answers. He had a dry sense of humor and would slip a story or comment in at times to break the tension in conversation, which is something I appreciated about him. Though he worked hard, Andy also liked to have a good time with family and friends, whether away at meetings or right there on his farm.

Like many people who visited the Clough farm, I had the harrowing experience of riding with Andy in his pickup on more than one occasion. Though it was a thrilling ride, I never worried too much because Andy seemed to live a charmed life over there in the wilds of Pierce County. Only in the last three or four years did I learn that Andy had been to school at Georgia Tech and worked for Lockheed before getting enough of Atlanta

Continued on Page 46, See Tribute

and heading home to the farm. That love for his land and home was another thing I admired about Andy.

Most people familiar with Andy knew his business side -- buying trees from him at the nursery or selling pecans to him in the Fall. But I'd like to share a story I heard about Andy from another grower probably a month before Andy passed away. This particular grower had an orchard of Excel trees-probably 50-100 acres - and had been having some health problems himself. As a result, he wasn't able to care for the trees as he usually did. One afternoon Andy stopped by to see him. He and Andy just sat together in his living room and talked for hours -- a little about pecans, of course, but mostly about life. As Andy was about to leave he told the grower, "I'm going to send my crew over here and take care of this orchard until you feel up to it."

Everybody has a side they don't let most folks see. Andy Clough was a larger than life character. Not everyone saw the side of Andy that the grower who told me that story saw but it was there, and probably more so than we realize. He will be missed.

--Lenny Wells, University of Georgia





Economical High-Quality Cracking and Shelling Solution Exclusive all-in-one design - Made in USA (Baxley, GA) Compact & Portable: minimizes floor space and weight No pre-sizing - Cracks and shells mixed sizes together.

Minimizes damage, maximizes unbroken halves.
Adjustable air jet blower separates shells from kernels.
Easy to operate, 110V, 60Hz, 6 Amp; Low maintenance
Rugged powder coated steel with reinforced castings

www.pecanprollc.com E-mail: kraknblo@gmail.com

Tribute, Continued from Page 45

As a pecan grower, Andy was one of the best in the business. As a friend, he was the very best in the business.

I always enjoyed sharing stories of growing pecans and listening to Andy's way of explaining how he grew pecans in the "swamp" of Southeast Georgia. He was always available to talk and was just memorable in so many ways.

Andy was a hard worker and dedicated to his love of family, friends, church and pecans. I will miss my good friend, but I look forward to seeing the pecan trees he has growing in heaven when I see him again. Rest easy, friend.

--Randy Hudson, Hudson Pecan Company

I really appreciate Mr. Andy for welcoming me to Southeast Georgia and the pecan family. He always wanted to talk to me as if I was a part of his family. I remember the first time meeting him in May 2019. I was at Chris and Susan's house when Mr. Andy drove up and said, "Is that Andrew?"

And I - not expecting him to know my name - enthusiastically said, "Yes, sir!"

Then Mr. Andy said, "Get in..."

Having no idea about how he drove a truck, I jumped in the passenger side and he took off. I was fortunate he left the truck in first gear. By the time we hit 40 mph, the engine was screaming and he looked down and said, "What is wrong with this truck?"

I looked over and said, "Oh, it's still in first gear." Fortunately, we were at the turn, so I never got to experience the wild ride others have had. Ironically, I actually thought to myself, "How did that engine not just blow up?"

That story made me a small part of the history of Andy driving others around the farm. I always appreciated the history of their farm, their family, and Mr. Andy's history. I enjoyed hearing him share about his Lockheed Martin days and how he came back to the family farm. Engineering and farming are one in the same. I am glad I got to meet him the last three years and appreciate his contribution to the Pecan industry.

--Andrew Sawyer, Southeast District Area Pecan Agent, UGA 🕏



It's a Girl!

We are so thrilled to announce the arrival of Freyja Stangeland McLeod! She was born July 11, 2023 to our Executive Director, Samantha, and her husband Robert. Freyja was delivered in Macon by C-section and weighed 7 pounds, 7 ounces. She was 20 inches long and has blonde hair. Both mother and baby are doing well and were welcomed home to Tifton by Freyja's big brothers, Arlan (5) and Curtis (3).

Her name is derived from Samantha's Norwegian heritage, as Freyja was the

most well-known Norse goddess. Her middle name, Stangeland, is Samantha's maiden name from Norway.

REVAIN CONTRACTOR OF THE PARTY OF THE PARTY

Congratulations to the new party of 5 - the McLeod family!



Gillison's Variety Fabrication,Inc.

800-392-6059 www.gillisons.com

In Georgia, Sold and Serviced By:

Flint Ag and Turf 229-432-7468

www.albanytractor.com

With Store Locations In:
Albany,Americus,
Colquitt, Cordele,
Cuthbert, Leesburg,
Pelham, Sycamore,
Sylvester

Pecans Highlighted At HELLO FRESH Headquarters

By Diane Welland MS, RD Director of Nutrition Communications National Pecan Shellers Association

This Spring, the National Pecan Shellers Association (NPSA) and the American Pecan Promotion Board (APPB) hosted a pecan culinary workshop at Hello Fresh corporate headquarters and kitchens in New York City.

Designed specifically for Hello Fresh, a meal service company and its affiliate companies: Green Chef, Factor, and Every Plate, the pecan immersion event explored pecan history and origins, pecan nutrition, how to store and handle pecans as well as the many versatile and unique culinary applications of pecans via cooking demonstrations.

More than a dozen corporate chefs, marketers, dietitians and buyers came into the NYC office to attend the Friday event in-person and six more corporate chefs and product brand managers, attended the event live virtually in the Denver Colorado kitchen headquarters.

In addition to educational presentations by registered dietitian and NPSA Communications Director Diane Welland and professional chef Abbie Gelman, the groups tasted a number of different pecan applications including pecans in different forms roasted and raw and pecans in condiments such as roasted pecan mustard and a pecan spicy streusel. The group also got a chance to try a variety of pecan recipes like pecan salmon







Continued on Page 49, See Fresh



3724 Westgate Road, Grand Island, NE 68803 info@sprayinnovations.com www.sprayinnovations.com Toll Free (800) 864-4595 (308) 210-3815

The 5-nozzle and 10-nozzle volutes are excellent for spraying orchards, vegetables and vineyards! The size of tank, size of fan, and type of pump are specific to your preference and application.

Call our sales staff for further assistance on selecting the perfect sprayer for you.



Spray Innovations has offered farms from coast to coast the necessary spraying equipment to assist with orchards, cattle, vegetables and vineyard applications!

Proud Sponsor

of the

GEORGIA

PECAN GROWERS

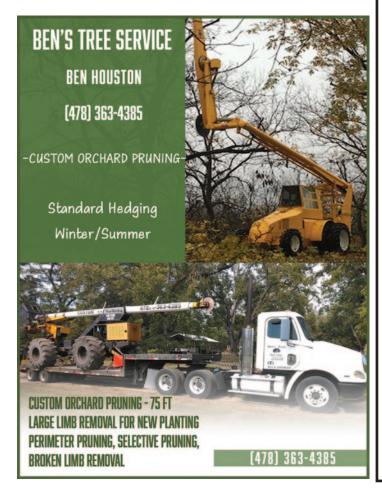
48 The Pecan Grower

Fresh, Continued from Page 48

cakes, avocado strawberry pecan salad and spicy pecan ramen noodles. Attendees were surprised at the difference in taste and texture between roasted and raw pecans and the ease of use of the product. There was particular interest in upcoming pecan trends, including spicy flavors and ethnic pairings. NPSA also discussed handling pecans and interesting ways pecans can be used in simple, easy-to-make recipes for Hello Fresh customers.

Recently HelloFresh featured a pecan crusted salmon recipe on their website. Served crushed, pecans are the perfect topping for salmon fillets in a creamy honey mustard sauce.

For more information and more pecan recipes, visit www.ilovepecans.org/commercial-food-service or contact dwelland@ilovepecans.org.



RAMEN NOODLES WITH SPICY PECAN SAUCE AND CHILI CRISP



Ingredients

Ramen Noodles::

- 8 -10 oz. dried ramen noodles (cooked al dente, drained and rinsed in cold water)
- 2 teaspoons sesame oil

Spicy Pecan Sauce:

- ½ cup roasted pecan pieces, flour or meal
- 3 garlic cloves, roughly chopped
- 1 tablespoon fresh ginger root, roughly chopped
- 1 tablespoon sambal or chili paste
- ½ cup pecan butter
- 1 tablespoon dark brown sugar or palm sugar
- 2 tablespoons hoisin sauce
- 2 tablespoons rice vinegar
- 2 tablespoons tamari or soy sauce, low sodium
- 1 cup hot water

Garnish:

- 1 cup cucumbers, thinly sliced into matchstick cut
- ½ cup scallions, thinly sliced
- Chili crisp, to taste
- Sesame seeds

Instructions

Ramen Noodles:

1. Thoroughly mix sesame oil into noodles and set aside.

Spicy Pecan Sauce:

Process all ingredients until smooth. Check seasoning to taste and set aside.

Assembly:

1. Place noodles in bowl and top with desired amount of spicy pecan sauce. Garnish with cucumbers, scallions chili crisp and sesame seeds.



2023 Pecan Field Day At The Vidalia Onion **Research Farm**

By Andrew Sawyer, SE Georgia Area Pecan Agent, UGA Extension

greatly appreciate the support from those who attended the 2023 Pecan Field Day at the Vidalia Onion Research Center in June. We had almost 100 people in the orchard to view the numerous pre-emergent herbicide plots sprayed in April. I am not saying that science

and education are not important, but my favorite part of that day was leaving the orchard to get to the air conditioner, which was followed by a fantastic lunch. Thank you to the numerous sponsors who fed us this year!

This orchard was planted three years ago to emulate Dr. Wells' low-input trial at the UGA Ponder Farm in Ty Ty. In East Georgia, many growers had previously planted low-input varieties and new growers are adding to the low-input acres as well. We need a place in Southeast Georgia to observe these varieties for scab. Before these trees produce, I plan to use this orchard as a demonstration and research site for non-bearing trees. As post emergent herbicide (glyphosate, glufosinate, etc.) prices rose in 2021, this site was a good example for demonstrating pre-emergent herbicides – especially since this site at the VORC has not had any herbicide in its known history.

The long-term goal is to build a program on your farm. In pecans, we have many different classes of preemergent herbicides, which gives us many options for rotation. Do not use the same herbicide each year so that

Continued on Page 51, See Farm



FOR SALE in Thomas Co. GA

2022 OMC Mono Boom Shaker

111 HOURS 1 season | SERIAL #A626234 NEW list price \$225,000 **ASKING price \$195,500**

CALL 229-225-5454

Farm, Continued from Page 50

you can avoid weed resistance. Included in the plots were our standard pre-emergent herbicide rotations, a former standard program and a few new products. One observation we made at the field day was that the former standard of simazine + prowl was nearly as good as our newer standards.

We also saw that the half rate of indaziflam (Alion, Centrus) looked comparable to its full rate. This soil has never had indaziflam before, which means there is no chemical build up at this location. Remember, the recommendations of Alion and Centrus are: 5 oz per acre for first use - followed by 3.5 ounces per acre its next use. Another rotational option is Pindar, which is a dormant application. I made its first application in November and second application with all the other herbicides. For young trees, I would highly consider this rotation. When I made the spring pre-emergent applications, the Pindar plots were 90% clean of weeds. I needed very little post emergent herbicide. It controlled the winter weeds (Italian ryegrass and raddish) very well at the VORC.

The day after I applied these plots, there was significant rainfall. Then we had little rain for the rest of April through June. Once it started raining, you could observe the plot break down. Remember, no year is the same and some of what we saw will be different each year.

Tatnall County Agent Derrick Bowen is helping me rate these plots so we can put more together at the end of the season. Here are a few high points to remember when using pre-emergent herbicides:

- 1) Soil contact: If you have never used pre-emergent herbicides, it may take a full year for post emergent herbicides to eliminate the grasses, broadleaves and also organic residue as they die. Most pre's need full soil contact to work.
- 2) Rainfall: There must be rain or an irrigation event after applying herbicide for activation. Some herbicides are more forgiving about initial rainfall and can stay on the soil without degrading for a longer time. Prowl, for

Continued on Page 52, See Farm



Farm, Continued from Page 51

instance, needs rain within 7 days of application.

- 3) Soil texture: If there is a range in herbicide rate, use lower rates on course textured soils (sandy) and higher rates on heavier soils (clay).
- 4) Length of Control: The length of control is not just the rate and/or product selection. This orchard you observed is three years old and without shade. The sunlight also breaks down the herbicide. Therefore, I am applying at least two pre-emergent herbicides in a season. Once your trees provide significant shade, with a solid program and rotation, you will many times make one application a year.

Lastly, I appreciate Mr. John with Chemical Container and Dr. Wells for sharing how to set up and apply liquid nitrogen through irrigation. Most of us are putting out too much nitrogen on trees! Remember, the calculation of liquid nitrogen per acre is found in the diameter of the irrigation coverage from your emitters. When applying dry fertilizer, we only calculate the herbicide strips, which is about ¼ to 1/3 of your total acreage. The

water from the emitters covers less ground than the herbicide strips. You determine the diameter of the emitter coverage and multiply by the trees per acre to determine nitrogen units per acre. Dr. Wells has a blog post to help calculate it out on the UGA Pecan Blog.



John Bennett, County agent from Wilcox County is shown talking about controlling Bermudagrass at the 2023 Pecan field day at the Vidalia Onion Research Center.



With Sympathy Sammie Quesada Singh, Sr.

GPGA would like to extend our most sincere condolences to the family, friends and colleagues in the Western Pecan Growers Association who recently lost one of their trailblazers. Sammie Quesada Singh, Sr. passed away Friday, July 7, 2023, while at home surrounded by his family. He was 91.

Mr. Singh was respected throughout New Mexico for his farming expertise and business knowledge, notably with pecans. His family described him as a caring father, grandfather, uncle, friend, and mentor. He is survived by his wife, Martina, son, Sammie Singh Jr., daughter, Peggy Sue Singh, as well as his grandchildren and extended family.



PECAN PRODUCTION MANAGEMENT TIPS

August

-Make 2nd or 3rd N application if needed during "on" year (not needed with short crop)
-Irrigate as needed
-Be sure to maintain adequate soil moisture beginning in mid August as nuts fill
-Keep orchard mowed
-Patch bud
-Apply fungicides at 14 day intervals

-Apply herbicides as needed

 -Monitor for pecan weevil and hickory shuckworm
 -Keep leaves free of aphids

and mites

-Scout and spray as needed for

insect pests
-Prepare for Pawnee harvest
by mowing, remove debris
and service equipment

September

-Prepare for harvest by mowing, remove debris and service equipment
-Harvest Pawnee
-Be sure to maintain adequate soil moisture as nuts fill
-Patch bud
-Keep leaves free of aphids and mites
-Scout for pecan weevil and hickory shuckworm
-Scout and spray as needed for insect pests
-Fungicide sprays may be needed

under heavy disease pressure

October

-Prepare for harvest by mowing, remove debris and service equipment

-Make Fall nickel application to severely deficient trees
-Early harvesting may begin
-Nuts may need mechanical drying
-Market crop
-Continue irrigation as needed
-Prepare site for new planting
-Apply herbicide as needed
-Be aware of pre-harvest intervals for all chemicals applied

Oklahoma Growers Hold Conference

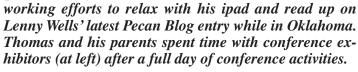
By Amy Howell, Copy Editor, The Pecan Grower Magazine

e would like to thank Arren Moses of Moses Pecan, who serves on GPGA's Board of Directors, for attending the Oklahoma Pecan Growers Annual Conference, along with his family, including wife, Taylor, and little boy, Thomas, on



June 1-3 in Tulsa, OK. The Moses family represented us well and brought back information and ideas to our GPGA staff to aid us in our conference planning.

Thomas Moses takes a quick break from his net-





New OPGA Officers & Board Members Elected

Submitted by Oklahoma Pecan Growers Association

uring the 2023 OPGA Annual Conference, a new Vice President and board of directors were nominated and elected. Bob Knight has one additional year on his term as President. For the office of Vice President, Jon Vantrease with Flying G Ranch was elected to serve the one-year term.

Each year, one board member from each location rotates off. Board members serve a 3-year term. The new northern board member will be JP Bennett with Great Buffalo Pecan Farm in Osage County. For the central area, Scott Mills from Okmulgee County will be serving. The southern seat will be filled by BW Savage in Marshall County. To replace Jon for his remaining term of one year in the northern seat, Chris Hoffman with Hoffman Pecan Farm in Payne County was selected.

OPGA 2023 Award Winners

Each year, OPGA honors members of the organization to celebrate their accomplishments and dedication to the pecan industry. The three annual awards include Grower of the Year, Grove/Orchard of the Year, and the Herman Hinrichs Award that is given to a person that is involved in extension, teaching, or outreach of OPGA.

Occasionally, OPGA recognizes an individual with exceptional dedication or assistance to the industry with a Special Award.

Herman Hinrichs Award

The 2023 Herman Hinrichs Award winner is Kelly Seuhs. Kelly grew up in Cache, Oklahoma. He earned his Bachelor of Science degree from Cameron University in Lawton. He first joined the Department of Ento-

Plant mology and Pathology in 2000 as an Assistant, Extension working with Dr. Jim Criswell and later Dr. Phil Mulder. In 2007, he received an M.S. degree in Agriculture Education at Oklahoma State University. In 2013, he was appointed to a nontenure-track faculty position with responsibilities of 50% research and



Continued on Page 55, See OPGA

OPGA, Continued from Page 54

50% extension. In his current position as Associate Extension Specialist, he serves as an extension state specialist in alfalfa but has been filling in with pecan insect programming when needed. He's been involved with many pecan projects including recently with weevil, aphid, and hickory shuckworm insecticide trials at the research station. He's also assisted Becky with the pecan classes, field days, workshops, and other trainings over the last several years. "He has been an invaluable team member, always willing to help when needed".

Special Appreciation Award

Thomas G. Coon, Vice President and Dean of Okla-

homa State University's Division of Agricultural Sciences and Natural Resources, is retiring on July 10 after nine years of dedicated service and visionary leadership to the university.

He earned a Bachelor of Arts (summa cum laude) in biology from Luther College in Decorah, Iowa, and a Master of Science and doctorate in ecology from the University of California, Davis.

He began his career as an assistant professor of fisheries and



wildlife at the University of Missouri. He went on to work as an assistant professor and associate professor of fisheries and wildlife at Michigan State University before becoming a full professor and also served as the director of Michigan State University Extension before assuming his leadership role at OSU.

Dr. Coon has been a great friend to the OPGA and the pecan industry since his arrival. Helping with filling pecan related positions on campus, attending field days and workshops, interacting with growers and board members, and talking to legislative members about the importance of pecans and the need for more research funding have all been very appreciated to the organization. He will be greatly missed but we hope he enjoys his retirement.

"Made In America"
Patented Machines

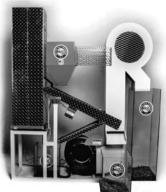


Call 954-240-3915

Manufacturers of Quality Pecan Cracking & Shelling Equipment

- * Commercial Industrial Grade
- * Cracks & Shells in one process from 200-900 + Lbs per hour
- * No sizing or adjustments required
- * High speed cracking
- * Cracks native and small varieties
- * East to operate 110V
- * All machines are portable
- * 2 year warranty on parts & labor
- * Great customer service!
- * 100's of references across the US and Mexico
- * Visit the website for videos and more information





www.pecannutbusters.com
Pecan Nut Busters, Inc.
6606 NW 20 Ave., Fort Lauderdale, FL 33309



Marketing Updates From The American Pecan Council (APC) And American Pecan Promotion Board (APPB)



Submitted by The American Pecan Council

The APPB Continues to Reach Consumers Across Social and Traditional Media

The American Pecan Promotion Board continues to produce a range of paid content live on Facebook and Instagram (@eatpecans), featuring pecan recipes, benefits, and animations to engage our target audience. As part of APPBs paid social content development, we partnered with content creator Emily Laurae to develop four new pecan recipes: Brown Butter Pecan Blondies, Pecan Chicken Salad, Pecan & Feta Phyllo Triangles with Fresh Herbs and Pecan Milk & Vanilla Syrup Shaken Espresso. These recipes and many more can be found on the APPB website, www.eatpecans.com

Keeping pecans top of mind with media, the APPB secured a recipe placement with their popular pecancrusted salmon with brussels sprouts in Susan Nicholson's 7 Day Menu Planner. The feature positions pecans as the go-to ingredient for easy weeknight meals that are delicious and nutritious. It also taps into the rising trend of using nuts as meat coating.

The placement syndicated across The Arkansas Democrat Gazette, Chicago Sun Times, and Wisconsin State Journal, garnering 539K+ impressions to date.

Additionally, the APPB connected with recipe developers in test kitchens across top-tier food and lifestyle outlets, sharing messaging and offering fresh pecan samples for use in upcoming recipe content. We received very positive feedback and thus far, we have sent pecan samples to contacts at AllRecipes, Bon Appetit, Food Network, Taste of Home, EatingWell, and Southern Living.

Continued on Page 57, See Marketing



Marketing, Continued from Page 56

APPBs All Mixed Up campaign launched this summer, and we are excited to share the vast amount of consumer content – from media partnerships to social media content – promoting pecans as the perfect ingredient for all types of snack mixes. In the meantime, check out our nationally distributed recipe feature, live on Culinary.net and take a look at all the sweet and savory snack mixes on eatpecans.com

The APPB Launches Inaugural B2B Promotion Program

New pecan products and line extensions are hitting store shelves as consumers increasingly value the flavor and nutritional benefits of this supernut. Pecans are being heralded as the fastest growing nut in new snack applications, so APPB is seizing the opportunity to continue that trajectory to

The Proof for Pecans

drive long-term growth.

Knowing pecans have wide-reaching consumer appeal, incredible flavor versatility, endless texture potential, and superfood nutrition made our task clear: to develop a marketing program combining paid and earned media efforts to raise awareness of pecans' superfood benefits with product developers.

New Resource: Innovation Guide to Influence Product Innovations

To validate pecans as a flavor favorite and a nutrition powerhouse, we created an Innovation Guide that explains why pecans are a trending ingredient for product developers.

In partnership with leading food and beverage market research intelligence groups Datassential and Culinex, we conducted consumer surveys, developed recipe prototypes, and documented pecans' versatility in trending applications. This piece will be used by APPB in marketing efforts and can be used by industry members at sales meetings, trade shows, and online to support the growing demand for pecans.

The Innovation Guide can be downloaded from eatpecans.com. If you have any questions about the Innovation Guide or any other APPB marketing questions, please feel free to reach out to industry@eatpecans.com

> Trade Partnerships to Position Pecans as the Quintessential Snack Ingredient

To reach product developers, we partnered with two top outlets that ingredient decision makers to turn to for trend and ingredient information - Prepared Foods and Snack Food & Wholesale Bakery - to educate their audiences on the health and taste benefits of pecans and

Continued on Page 58, See Marketing



ALABAMA PECAN GROWERS ASSOCIATION

P.O. Box 670 Silverhill, AL 36576

KIMBERLY WILKINS EXCUTIVE SECRETARY

PHONE: 251-215-7878

WEBSITE:

alpecangrowers.com

EMAIL:

alpecangrowers@gmail.com

APGA Annual Meeting and Educational Conference

The Alabama Pecan Growers Association is proud to announce the date of this year's 2023/24 Annual Meeting and Educational Conference. This year's meeting will be held on September 20th and 21st at the ALFA/Farmers Federation Building in Robertsdale. As always, we will have our welcome dinner Wednesday Night at 6:00 pm and then the conference on Thursday starting at 8:00 am. We are still working on the list of speakers but you can plan on having a panel of very knowledgeable professionals.

Please help spread the info by sharing these dates. Watch for more information on our website www.alabamapecangrowers.com. You may also email us at alpecangrowers@gmail.com

Marketing, Continued from Page 57

to inspire new product innovations.

The campaign will run from June – September and includes a mix of online advertisements and social media content for broad reach and custom articles and e-newsletters for deeper storytelling and engagement.

Inspiring the Media to Publish Pecans

We're excited to build relationships with editors at B2B trade publications. We have started media outreach with the Innovation Guide in an effort to spur future editorial coverage in these key outlets.

If you have any questions about the B2B program, feel free to email to APPB office at industry@eat-pecans.com.

The APC Continues to Showcase Pecans Through Influencer Partnerships

We are halfway through 2023 and the APC continues to build relationships with partners to promote pecans while sharing nutritional benefits and yummy seasonal recipes fit for any meal of the day. From pecan Winter-Wonderland inspired cakes to savory snack mixes, pecan butters and pecan crusted chicken, these recipes have reached over 8 million on Instagram with just above 50 of these pecan inspired posts. The APC continues to see an increase in 'saves' over the past few months and even videos from January and February are continuing to climb in views/likes/comments and saves, reaching even more people. We are especially excited to see the rise in 'saves' because this is indicating people are saving the recipe videos to try at home later!

The APC and Eat Well Global (EWG) Team Are Excited to Attend ADCES in Houston, TX

The Association of Diabetes Care & Education Specialists (ADCES) Annual Conference this August is an event where more than 3,000 diabetes care and education specialists and other healthcare professionals connect, collaborate, and educate attendees on the latest in diabetes care and education. The APC will have a booth in the exhibit hall and look forward to expanding the pecan conversation with healthcare professionals and all attendees.

Pecan Color Sorters



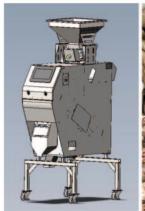
MS Series - Inshell Pecan

- High capacity (6,000 18,000 lbs/h)
- Sort by shapes, colors
- Double-side vision system



Mini Q32 - Shelled Pecan

- Most cost-effective option
- Sort by colors, shapes
- Small footprints





Four service centers in USA

Salida, CA Katy, TX La Mesa, NM Albany, GA

Contact David at (713) 294-1322

for more information.

CLOUGH PECAN COMPANY

Home of the Excel Pecan

Buy & Sell Wholesale and Retail

For five generations, the pecan orchards at Clough Pecan Company have produced some of South Georgia's premium pecans. We take great pride in the quality of our products as we sell our pecans in-shell, shelled, or farm-shelled.

We are now taking orders for 2023! Give us a call TODAY!

Varieties We Offer. . .



Andy Clough, Owner (912) 288-4895 Chris Clough, Vice President (912) 288-1947 Clough Pecan Office (912) 449-4585 www.cloughpecan.com 3417 Highway 84 W, Blackshear, Georgia 31516

When you PECANT handle the summer heat...

cool off with these pecan treats

BUTTER PECAN PRETZEL ICE CREAM

1/2 cup chopped dates, packed

1/4 cup coconut sugar (or erythritol granular)

1/2 cup unsweetened almond or coconut milk pinch of salt

3 tbsp. vegan (or regular) butter, divided

3 cups full fat coconut milk

1 tsp. vanilla

3/4 cup chopped pecans

3/4 cup crushed pretzles

1) Place chopped dates, sugar, and almond milk in a small saucepan and bring to a boil over medium-low heat. Remove heat and whisk in salt and half the butter

2) Place saucepan contents in a blender and purée on high until smooth

3) Add milk and vanilla and blend until smooth

4) Pour milk mixture into ice cube trays and freeze until firm, about 2-3 hours

5) Remove ice cream cubes from their trays and add to a high speed blender; working in batches, blend until smooth

6) Sauté pecans and pretzels in the remaining butter

7) Stir in pecans and pretzel pieces and enjoy soft serve style or transfer to a loaf pan and place in the freezer until you're ready to serve!

GREEN APPLE PECAN SMOOTHIE

1 large green apple

1 tbsp. maple syrup

3 cups fresh spinach

10 ice cubes

1 tbsp. fresh squeezed lemon juice





TOASTED OAT AND PECAN SMOOTHIE

1 cup pecan pieces

1/2 cup old-fashioned oats

1 cup whole milk (lighter milk if desired)

1 cup whole Greek yogurt (lighter yogurt if desired)

2 bananas, frozen in slices

3 tbsp. maple syrup

1 tsp. ground cinnamon

1/2 tsp. vanilla extract

Pinch of kosher salt

Ground nutmeg / pecans (toppings-optional)



1/2 cup ginger infused simple syrup

 1 cup granulated sugar. 1 cup water 1/2 cup fresh peeled ginger, and chopped

1 cup club soda

1 fresh lime, juiced - 2 wedges garnish

PECAN OLD FASHIONED

3 tbsp. finely chopped pecan pieces

1 tbsp. brown sugar

1 demerara sugar cube

2-3 dashes angostura bitters

2 oz. pecan infused bourbon

Orange Twist





*for the processes of the drinks above and others, please visit american pecan.com



PECAN INFLUENCERS



continue to whip up some pecan love in the kitchen



winniekison 🧇 6w yummm 🐽 🐽 love the p







convinoboard 8w

@leahspooner_wine a great addition to a charcuterie board



lindsaysurowitz 6w

Ooo love pecan pie... these bars look perfect •



simmerandsage > 7w I'll be making this all summer!

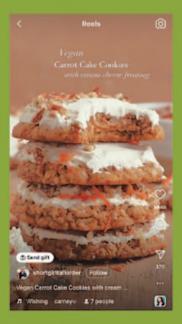


central_valley_sauce_works 7w
The sandwich I never knew I needed until NOW 69









The Pecan Grower Thank you, advertisers!

Able Ag Solutions	Mason Tractor Co
Actylis	Merritt Pecan Co
Ag NutrientsPage 16	Modern Electronics & Equipment, Inc Page 29
American Pecan Council	OMC (Orchard Machinery Corporation) Page 5
AMVT	Pacific Distributing/Orchard Rite Page 22
Apollo Pecan Nursery & Groves Page 39	Pacific Western (Tree Protectors)
Atlantic Can Company	Pecan Nut Busters, Inc
Avery Crop Insurance	Pecan Pro
Ben's Tree Service	Plant Food Systems
Bergen Ag Innovations Inc	R.W. Griffin Industries
Bowsmith Page 34	Renfroe Pecan Company
Carden & Associates, Inc	Savage
Clough Pecan Company	South Georgia Pecan Co
Cromartie Agricultural Chemicals Page 12	Southern Ag & Insurance Services Page 14
Durand-WaylandPage 18	Southern Roots
Easterlin Pecan Co., Inc	Spray Innovations
Ellis Bros Pecans, Inc	Stone Mountain Pecan
FEWA	Sunsweet Pecan Tree Nurseries Page 17
Flint Ag & Turf Page 15	Tidewater Equipment
Flory IndustriesPage 36	TRC Partners LLC Page 42
Georgia Pecan Nursery	Triangle Chemical Company
Gillison's Variety Fabrication, Inc Page 47	TriEst Irrigation
Gulf Coast Bag	Vann Farms Pecan Nursery Page 13
Holiday Tins & Containers	W.G. Hamil, LLC Page 14
Hudson Pecan CompanyPage 46	WECO Page 11
KeyPlexPage 26 62 The Pecan Grower	Weiss McNairPage 63



A Quality Line of Nut Harvesting Equipment







MORE HARVEST PROFIT AT A LOWER COST



Fewer Moving Parts Easy Maintenance





High Resale



Find a Dealer Near You for a Demonstration and More Information

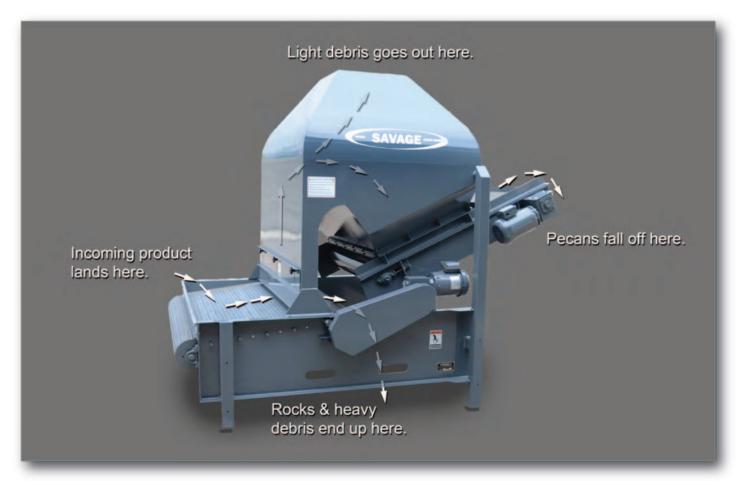
> WeissMcNair.com/ dealer-locations





GRAYLINE STONE REMOVER 3360C

SAVAGE EQUIPMENT'S GRAYLINE nut-cleaning machines are the industry choice across the U.S. pecan belt and in many countries around the world. As the newest member of the lineup, the C-series Stone Removers help turn harvested pecans into the clean, marketable product that buyers want. This innovative machine comes in a variety of widths to accommodate any scale of operation. Contact us today and let the Savage cleaning plant experts design the ideal facility to accomplish your goals.



Send us an email at info@savageequipment.com or connect with us on social media.







