RUTGERS COOPERATIVE EXTENSION AT THE NEW JERSEY AGRICULTURAL EXPERIMENT STATION

PLANT & PEST ADVISORY

FRUIT EDITION $1.50 JULY 6, 2004

INSIDE

Strengthening New Jersey's Peach Industry

Charles M. Kuperus, New Jersey Secretary of Agriculture

The New Jersey peach industry is valued at approximately $28 million. Covering more than 8,000 acres, New Jersey peach growers produce 75 million pounds of the popular fruit annually. Usually ranked in the top five producing states nationally, New Jersey peaches are typically enjoyed throughout the eastern seaboard from the beginning of July through early October.

However, Garden State peach growers are facing some major challenges that have placed the industry in New Jersey at risk.

Last season was a trying year for New Jersey peach growers. Growers experienced over-supply as well as little or no marketing interest or movement. As the season progressed, New Jersey storage capacities and holding periods increased and quality sharply declined. Consequently, retailers abandoned the New Jersey market.

In addition, over the past few years, growers have noticed that an increasing number of out-of-state peaches have displaced traditional New Jersey markets.

To strengthen the peach industry in New Jersey, a task force was assembled made up of leaders in the agriculture and peach industries, along with the Rutgers Food Policy Institute, Rutgers Cooperative Extension, NJ Farm Bureau and retailers, to develop a long-term strategic action plan designed to reposition New Jersey-grown peaches in the market place and identify new markets and opportunities to bolster the industry.

One of the task force's recommendations was to assemble food industry members to build excitement for New Jersey peaches. On June 8, representatives of the state's leading supermarket chains, restaurant industry, and other food buyers gathered at Drumthwacket, the Governor's mansion in Princeton, as Governor James E. McGreevey and Agriculture Secretary Charles M. Kuperus thanked them for their past and future support for buying Jersey Fresh agricultural products. Many of the attendees also were members of the New Jersey Food Council. These executives help facilitate the purchasing and promotion of Jersey Fresh products, including peaches, throughout our growing season.

The task force concluded that New Jersey must work to regain lost markets to other state's peaches and differentiate its peaches from eastern peaches. To accomplish that goal, the task force recommended that the Department:

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Calendar of Events

July 8, 2004 – 3:30 p.m. – USDA/Rutgers University Blueberry Field Day at the Phillip E. Marucci Center for Blueberry and Cranberry Research and Extension, 125A Lake Oswego Road, Chatsworth, NJ. For additional information and directions call the research center at 609-726-1590.

July 11- 14, 2004 - Northeastern Branch Agronomy-Soils Meeting, along with Certified Crop Advisor Training Programs in Nutrient Management and in Turfgrass Science, EcoComplex, Bordentown, NJ. Contact: Registration can be done online at: www.ecocomplex.rutgers.edu/nebasa/. To receive a registration form by fax or mail, contact Joseph Heckman at Cook College at 732-932-9711, ext. 119.

July 22, 23, 24, 25, 2004 - Thursday thru Sunday – New Jersey Peach Festival and Gloucester County 4-H Fair will be held at the 4-H Fairgrounds, Rte. 77, Mullica Hill, NJ. Program information forthcoming on website http://gloucester.rce.rutgers.edu/

NJ Pesticide Applicator Units to be provided at each of the evening fruit meetings.

PEACH INDUSTRY FROM PAGE 1

- ◆ Present a unified identity for New Jersey peaches through labeling, which should include the *Jersey Fresh* logo or specifically show the product is from New Jersey.
- ◆ Develop a new grade and protocol that would include freshness standards for peaches to be packed under a special Premium *Jersey Fresh* label.
- ◆ Visit retail buyers along with peach industry members who would be able to update buyers on crop conditions, volume, size, and quality expectations to keep the peach industry visible to buyers.
- ◆ Distribute special "recipe tear-off" cards that would feature peach recipes on one side and consumer storage and handling tips on the other side along with other *Jersey Fresh* point-of-purchase materials in an effort to give consumers more options in using their peaches.
- ◆ Initiate an in-store sampling program where shoppers at participating retail markets would be offered samples of New Jersey peaches.
- ◆ Highlight Jersey peaches in *Jersey Fresh* radio and television ads.
- ◆ Work with the U.S. Department of Defense, the state Department of Corrections, and Rutgers University to coordinate the purchasing of New Jersey peaches and peach products.
- ◆ Encourage new product development with such products as dried peach fruit leathers, frozen peach cups, or peach beverages for use in the school lunch program and institutionally.
- ◆ Certify all New Jersey peach farms for good handling practices and good agricultural practices through third party audits.

The Department already has begun making some positive changes that will help the peach, as well as all other commodity industries. A new *Jersey Fresh* protocol has been developed to sell the best of the best through: display ready packaging; stickering fruit to differentiate from other states; registering all farms in the Farm Assurance Certification Program; and upgrading the *Jersey Fresh* standard.

Three additional inspectors will be hired to perform third party audits and conduct Jersey Fresh Quality Grading program inspections. A special page will soon be added to our *Jersey Fresh* website that will include announcements telling consumers where they can find *Jersey Fresh* products, including peaches, for the week.

The Department recognizes we can only implement these recommendations if the farmers, buyers, sellers, and retailers work together to keep our farmers economically viable in offering the region's consumers the finest *Jersey Fresh* peaches available. We cannot accomplish these goals alone. We are committed to working with industry leaders and others on this long-term project.

Through these recommendations we hope to revitalize the peach industry within the next three years. By working cooperatively with growers, retailers, and governmental agencies, sweet, delicious New Jersey peaches will find the renewed popularity they deserve.

Submitted by Jerome L. Frecon, Agricultural Agent. ❑

2004 New Jersey Peach Festival and Commercial Peach Pak Competition

Jerome L. Frecon, Agricultural Agent

The New Jersey Peach Festival is an educational and promotional exposition held annually for the New Jersey Peach industry. The "festival" actually kicks off the new shipping season for New Jersey peaches. This year it will again be held at the Gloucester County 4-H Fairgrounds on Route 77, 2 miles south of Mullica Hill in Gloucester County. The exposition is run in conjunction with the Gloucester County 4-H Fair and begins at 10 a.m. on Thursday, July 22 and runs through 5 p.m. on, Sunday, July 25, 2004.

The "festival" is centered in one location at the fairgrounds. A small peach tent is located near the top of the hill from the lot as you enter. There, peaches, processed peach products and many other peach items are sold to raise money for peach promotion. Many growers and shippers donate beautiful peaches to help raise these funds. Each purchaser is given information on how to use peaches and where to buy peaches in retail quantities.

IF YOU WOULD LIKE TO DONATE PEACHES TO THE FESTIVAL PLEASE CALL ME AT 856-307-6450 ext 1, AND WE WILL ARRANGE FOR PICKUP.

A large peach tent is located behind the small tent. The only thing sold in the tent is peach ice cream (you will not miss the tent as you see the long line).

This large tent is the main exhibit tent containing a display of many boxes of peaches and nectarines, both yellow and white-fleshed, from growers and shippers. This display is for the Commercial Peach Pak Competition. Growers enter ½ bushel boxes of peaches in three categories. The first category is the commercial one. My designated representative or I go to requested packing house and pick our peaches in one of three size classes. They are: 2¼ inches in diameter; 2½ inches in diameter; 2¾ inches in diameter. The peaches in this category represent the same peaches shipped to supermarkets across the United States. Consequently, the best box of peaches in this category is given the GOVERNOR'S CUP by Secretary Kuperus or his representative for their quality. Some growers prefer to hand select peaches for the competition; these are broken down for the same three sizes and put in the select category. A specialty category was also set up to handle entries of white peaches and nectarines. A specialty class was also made for the largest peach by weight.

Each grower can have one entry in each class. The top three in each class win ribbons and plaques, which will be presented at the awards reception on Friday, July 23, 2004 at 7 p.m. The best in each category will also be presented a dinner for two at a quality restaurant in the area. *The best part of the competition comes after the judging on Thursday evening when all the beautiful boxes of peaches are on display for the viewing public.*

ANY GROWER OR SHIPPER WISHING TO DISPLAY PEACHES OR EXHIBIT IN THE COMPETITION SHOULD CONTACT ME AT 856-307-6450 Ext-1.

The main peach tent will also feature a display of peach varieties being researched by Rutgers Cooperative Extension. The New Jersey Peach Promotion Council will have an exhibit of how to choose and use peaches and nectarines. Rutgers Cooperative Extension will have an exhibit of their educational programs. The Rutgers Agricultural Research and Extension Center in Upper Deerfield Township will display the results of their peach research programs. The New Jersey Farm Bureau will have an exhibit on safe and abundant food. The Rutgers Cooperative Extension Integrated Pest Management program will have an educational display on major peach and fruit problems and how they are controlled. There will be other educational games and exhibits on display from the Soil Conservation District, Natural Resources Conservation District and Rutgers Cooperative Extension of Gloucester County.

On Friday afternoon a media tour will be held for food writers. On Saturday morning the 2nd Annual Peach Bakeoff will be held.

Also on Friday evening on the main stage the New Jersey Peach Queen will be selected and crowned along with the Little Miss Peach Queens. These queens represent the New Jersey peach Industry at educational and promotional events throughout the year. The final peach event will be the Peach Blossom parade on Sunday morning July 25, 2004.

Peach educational tours are run throughout the festival.

Information on the festival can be obtained by calling our coordinators Jenna Smith at 609 221-5388 or Chris Smith at 856 881-1411. This year for the first time a new web site has been designed with all the entry forms and the complete schedule of peach festival events: http://gloucester.rce.rutgers.edu/fairfest/. All the information you need is on this site. ❑

Prune Cherries Right after Harvest

Win Cowgill, Agricultural Agent

Bacterial Canker is a serious bacterial disease of cherry in New Jersey, and all other regions where the climate is humid. Bacterial canker has been very active this season in New Jersey in both sweet and tart cherry blocks.

We learned from the Europeans that the first line of control for this disease is to *prune* immediately following harvest. Avoiding dormant pruning lessens the chance of infection in the pruning wounds. On infected branches, *leave stubs* of 6-8", this will prevent the canker from entering the trunk and scaffolds. The canker will not move down the stub. See the other control measures outlined below.

Bacterial canker or bacterial gummosis of sweet cherry is caused by several *Pseudomonas* bacterium. This disease infects flower buds and spurs. It can completely kill new spurs and leaves and then move into the trunk on cherry. This is especially problematic with our new Geslia Dwarf cherries as losing a scaffold or getting infection into the trunk will limit production as the tree rapidly declines.

In our humid climate in New Jersey the cankers can continue to develop in lateral branches and the central leader. In some cases the cankers have grown to girdle and kill two-year wood. I have observed central leader dieback as a result. In older wood the canker looks very much like a fire blight canker in apple. In most cases the canker begins to ooze a brown to amber exudate. It appears that under our humid conditions this disease is very hard to control and can be devastating if control measures and the proper horticultural practices are not followed.

The source of inoculum may come from wild cherry trees in our hedgerows; Black Cherry, *Prunus serotina* may be one source of inoculum for the *Pseudomonas* during wind and rainstorms in the spring and summer months. Removal may be beneficial.

Overall, the best information on this disease is from a fact sheet from Ontario Canada written by W.R. Allen "Bacterial Canker of Sweet Cherry" NO. 88-0886. You can find it online at http://www.gov.on.ca/OMAFRA/english/crops/facts/88-086.htm. It has good color plates and lists control measures, however, it appears that under our humid conditions this disease is very hard to control and can be devastating. This bacterial disease is most troublesome in young plantings where it can cause losses of up to ten percent of the trees. On mature trees it can reduce yields from 10–50%.

Control

Cankers get started mainly in the fall after most of the leaves have fallen and the trees are beginning to go dormant. The only effective way to control this disease is to reduce the number of bacteria before the trees enter their susceptible period, avoid large dormant pruning cuts, and use summer pruning to minimize the impact of the disease. The bacteria that start these cankers are found on the surfaces of mature leaves and other green tissues, and do not come from existing cankers.

Bacterial Canker on sweet cherry

First, *only prune* in the summer immediately following harvest. *Second*, the only successful control we have found is repeated applications of the old Bordeaux mixture in September, October, and November and repeated again in the spring. Bordeaux Mix consists of Hydrated lime and Copper Sulphate. The rates and methods of mixing are important. We began our sprays the first week in September. Note however that sprays of Bordeaux applied to green leaves must be *softened* with vegetable oil to avoid burning the foliage. Four additional sprays 14 days apart will be applied. Bordeaux mix will also be applied in the spring with several applications before bud break.

It would be my recommendation that in all cherry blocks a program of Bordeaux Mix applications should be made this September. Careful observation and scouting of older blocks should be done now to determine if this bacterial disease is present and control warranted.

Other Coppers

In a research trial at the Rutgers Snyder Farm, Champ copper was also evaluated against Bordeaux mix for phytotoxicity on cherry. The oil equally saftened Champ as it did Bordeaux. For additional information please do not hesitate to contact me.

Fact sheets on Bacterial Canker

There are numerous fact sheets online for Bacterial Canker; many include color photographs for reference. Below are the listings for several:

Ontario Canada written by W.R. Allen "Bacterial Canker of Sweet Cherry" NO. 88-0886.
http://www.gov.on.ca/OMAFRA/english/crops/facts/88-086.htm
West Virginia University
http://www.caf.wvu.edu/kearneysville/disease_descriptions/bactcank.html
Comparison of healthy trees vs. diseased trees:
http://www.caf.wvu.edu/kearneysville/disease_descriptions/disease_images/fig129c.jpg
University of California
http://www.ipm.ucdavis.edu/PMG/r105101511.html

Fruit IPM

Dean Polk, Fruit IPM Agent

Peach

✔ **Tarnished Plant Bug (TPB) and Other Catfacing Insects:** TPB has from 3 to 3.5 generations per year. When the insect produces a new generation, or brood, the majority of the insects will be the young flightless nymphs in the ground cover. Since the nymphs can't fly, they are no immediate threat to the fruit in the trees. However after a couple of weeks mature TPB are present, and disperse into the trees where they can feed on the fruit. At the present time, up to 20 TPB nymphs per 50 (ground cover) sweeps are being found in southern counties. Orchards with clover and other flowering weeds have the highest populations. Any ground cover operation done when adults are present will help push them into the trees. Mowing done now is OK, but done in 10+ days is more risky, since more adults will be present. Similarly, insecticides should not be skipped or rates reduced during the time that significant numbers of adults are present. It is likely that peak adult activity will coincide with the first treatments for 3rd generation OFM – see below.

✔ **Oriental Fruit Moth (OFM):** The second brood is about 100% hatched in southern counties, and about 76% hatched in northern counties. Some flagging from larval infestations in the wood is present in northern counties. Degree day spray timings are as follows for the second generation (northern counties), and the start of the third generation (southern counties), updated since last week:

Application and Insecticide Type		
County Area	**Standard Insecticides**	**Intrepid**
Southern	Done, 3rd gen. sprays start about 7/11-14	Done, 3rd gen. sprays start about 7/12
Central	Done, 3rd gen. sprays start about 7/15-18	Done, 3rd gen. sprays start about 7/14
Northern	2nd gen. - 2nd trt. 7/4-5	2nd gen. - 2nd trt. 7/3-4

✔ **Anthracnose:** This disease is not a regular problem, but has been seen during the past few years on Harrow Beauty, Bounty, White Lady, and Klondike. It is the same disease that causes anthracnose on blueberries and bitter rot on apples. During the past week, we have seen an increased level of anthracnose on blueberries. Captan is one of the most effective anthracnose materials used on tree fruit. Since the mid-summer period just prior to ripening can be a critical period for anthracnose infection, keeping captan in the spray tank is recommended for at least the sensitive varieties.

Apple

✔ **Codling Moth (CM):** CM larvae are just starting to emerge in southern counties (about 4-5% hatch), but should not start to hatch in northern counties until about 7/10-11. Therefore in southern counties, the time to treat for codling moth is NOW. If using Assail, Calypso or Intrepid, applications need to go on 1-2 days earlier than if using standard OP's, carbamates or pyrethroids. Do not use trap counts as a guide for this second generation degree day timed spray. Treatments should be completed at the optimum timing with the correct rate and volume. After 2 complete CM treatments have been applied, then trap counts can be used as a guide to help determine the need for supplemental applications. The following chart updates timings outlined in last week's newsletter.

Application and Insecticide Type - 2nd Generation		
County Area	**OP's, Carbamates, Pyrethroids, Avaunt**	**Assail, Calypso and Intrepid**
Southern	7/5-6	7/3-4
Central	About 7/8-9	About 7/6-7
Northern	About 7/17	About 7/15

✔ **Fire Blight:** Partially due to the drier weather, and the slower rate of tree growth, fire blight spread has slowed or stopped for now. Growers who have established blight infections should still be prepared to use copper applications prior to fire blight infection periods. Additional infection periods are predicted for 7/8, 9, and 10.

Blueberry

✔ **Leafrollers and Other External Worms:** There is little change in the frequency at which larvae are being found in beating tray samples. About 18% of samples show worm activity, with the actual infestation being very low at 4 worms per 1000 fruit clusters. Some leafroller injury is present at up to 1% of fruit clusters on 2 of the farms being monitored.

✔ **Aphids:** Counts have increased significantly since last week. Aphids are present in about 86% of samples (75% last week), and are over the 10% terminals infested level in 50% of samples (41% last week). One farm was seen where 96% of the growing shoots were infested. This increase is partially due to the fact that aerial sprays are now being used almost exclusively in place of ground applications.

✔ **Blueberry Maggot:** There is no change in the status of this pest. Very few adults are being captured. However, if on a calendar based program, these sprays need to be continued. Growers in the IPM program for Canadian exports need only apply whenever any trap is equal to or exceeds 1 fly per trap per production area.

✔ **Oriental Beetle (OB):** Trap counts have decreased over the past 7 days. The adult flight has peaked, and fewer adults will be seen for the remainder of the season. While some fields have already had Admire applications, all designated fields should have Admire applied over the next couple of weeks. If Admire applications have not been completed on any targeted Bluecrop fields, then applications should be completed immediately after the final harvest. All targeted Elliott and other late variety

See IPM on page 6

IPM FROM PAGE 5

fields should have already had Admire applied.

Japanese Beetle: Adult beetles are present in about 5% of samples. The highest level of fruit injury was at 2.5% of clusters with injury. Japanese beetle is probably more of a concern when the insects end up in picked fruit, finding their way into the final pack and end up on somebody's corn flakes. For growers with Japanese beetle concerns the following table may be helpful:

Material	PHI	Notes
Provado	3	6-8 oz/Ac
Lannate	3	
Imidan	3	
Sevin	7	Quick knock down but 7 day PHI

All materials are also effective for maggot control, but Provado and Lannate (to an extent) are also effective for aphid control.

Anthracnose and Alternaria: Scouted field levels have increased some since last week, with both diseases present in about 3% of samples. The highest levels of anthracnose were at 2% of clusters infected. Increased levels of anthracnose are present on slightly overripe Bluecrop. Therefore, fungicide sprays should be maintained through harvest, especially on Bluecrop. Both Abound and Cabrio are effective for both **Anthracnose** and **Alternaria** and have a "0" day PHI.

Insect Trap Captures

Tree Fruit – Southern Counties

WeekEnd	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
18-Jun	1042	15	3		4	25	8	14	30	5
25-Jun	1729	4	3		3	30	14	4	62	7
2-July	732	1	1		3	25	8	2	43	4

Tree Fruit – Northern Counties

WeekEnd	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM- P	LPTB	PTB
18-Jun	541.8	35.1	8.1		0.0	12.3	19.1	46.0	4.1	0.5
25-Jun	520.0	20.2	3.9		0.0	3.0	21.2	24.3	2.4	0.1
2-July	420.8	10.3	2.0		0.0	0.8	14.7	8.1	4.6	0.6

Blueberry – Atlantic County

Week End	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
18-Jun	0.1	148.3	3.4	0.3	2826.5	0.05
25-Jun	0.1	69.0	2.9	0.3	2943.3	0.03
2-July	0.1	31.1	0.2	0.1	2128.2	.04

Blueberry – Burlington County

Week End	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
18-Jun	1.5	40.2	5.0	3.5	395.5	0.1
25-Jun	1.4	60.1	6.0	1.8	1166.7	0.05
2-July	0.0	23.4	1.4	0.7	1141.3	0.19

Plum Pox Survey 2004

Linda Schepers, Division of Plant Industry, NJ Department of Agriculture
linda.schepers@aphis.usda.gov

Weekly Sampling Results, Week Ending: June 25, 2004
STATE: New Jersey

Date Sampling Began	Date Sampling Completed	Laboratory Doing The Analysis	Cumulative Total of Field Samples Collected*	Cumulative Total of Lab Samples Processed*	Sampling Results
5/10/04	6/25/04	NJDA	5,435	20,032	negative

* 1 quadrat field sample contains 4 lab samples per USDA sampling protocol.

Submitted by Jerome L. Frecon, Agricultural Agent. ❑

Value-Added Producer Grants Available

Louis Cooperhouse, Director, Rutgers Food Innovation Research and Extension Center

Summer is here and the Food Innovation Research and Extension Center recognizes this is a fast-paced season for you, whether you are busily plowing the fields, tending the herds, thinning the orchards or casting your nets. We also recognize however, that many clients and potential clients have been cultivating new ideas for value-added agricultural products over the past year. The Food Innovation Center is eager to assist you with transforming your dream into a reality. We want to inform you of *two outstanding grant opportunities* that are available this year and suggest that you seriously consider applying for these resources. We discussed these programs during seminars that we held earlier this year, and more information has recently become available. These two programs are as follows:

The first granting agency is USDA Rural Development, which is awarding $13.2 million dollars nationally through a competitive Value-Added Producer Grants (VAPG) Program. Individual applications can be for up to $500,000 in funding, and evidence of matching funds must be shown. Information on eligibility, application and submission information, etc. can be found on the web at http://www.rurdev.usda.gov/nj/vapg.html. If you'd like us to fax or mail a copy of this to you, please phone our offices. Please note this significant change this year: all *paper* applications should be submitted to DynAccSys, Attention Bitsy Keko, 101 Donner Drive, Oak Ridge, TN 37830; electronic applications are to be sent via email to VAPG@duncanltd.com. Applications sent to the state office will not be considered eligible.

The second granting agency is the Rutgers Food Innovation Center, through $50,000 in funding that has been received by our Center from USDA Rural Development for this purpose. These funds will be awarded at levels of $5,000 each to 10 eligible agricultural producers in New Jersey this year! Unlike the national USDA grant application, we are requesting that you limit your application to the Rutgers Food Innovation Center to just 5 pages, plus any supporting documentation you'd like to provide. Call the center for further information on the Rutgers Food Innovation Center requirements.

For both grant programs, the deadline for submission is July 30, 2004. Also, in both cases, grants will be awarded for either 1) Planning Grants, or 2) Working Capital Grants, and be intended for the development of businesses that produce and market value-added agricultural products. The Food Innovation Center is ready and waiting to facilitate all applicants with the preparation of their submission. We will gladly consult with you on all stages of the proposal, including defining the business concept, to crafting the narrative and working through your budgets.

Please do not hesitate to contact the center for additional information at 856-459-1125. ❑

Sustainable Agriculture Grants for Farmers Available

The Northeast Region Sustainable Agriculture Research and Education program (SARE) recently released updated application materials for its Farmer/Grower grant program. These grants support Northeast farmers who want to explore innovative and sustainable practices on their farms.

The Farmer/Grower Grant program, initiated in 1993, allows farmers to conduct experiments, try new approaches, and test emerging ideas about agricultural sustainability. The emphasis is on new ideas that advance good stewardship, improve farm profitability, and strengthen communities.

In 2004, grants ranged from $1,121 to determine how an early planting of peas affects the nitrogen needs of pumpkins, to $10,000 to see if chemical residues are contributing to health problems in honeybees. The average grant was about $5,800; grants are capped at $10,000.

Applicants must farm either full- or part-time in Connecticut, Delaware, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, West Virginia, Vermont, or Washington, D.C.

The deadline for the 2005 grant round is December 7, 2004, and applications can be downloaded from the Northeast SARE web site at www.uvm.edu/~nesare. Farmers can also request a printed application by calling 802/656-0471 or by sending e-mail to nesare@uvm.edu.

Submitted by Michelle Infante-Casella, Agricultural Agent. ❑

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PLANT & PEST ADVISORY

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