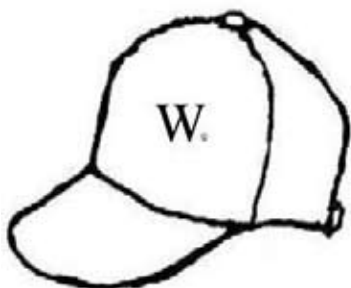


PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

MAY 29, 2007



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Beat the WAL-MART Inside You

Much ado about big boxes moving into town, but the real challenge is pricing your goods properly.

Jhilson Ortiz, Senior Program Coordinator - Agriculture

Consumer research tells two different stories about farmers and their products in New Jersey, depending upon the client you ask. Big brokers and food distributors think of Jersey produce as necessarily cheap, and direct consumers think of it as necessarily fresh.

The second one is right, as well as the first.

Un-differentiated products ought to receive the same or lesser price; after all, it's the market that dictates the prices. But what choices do farmers have then? Packaging and post processing of fruits and vegetables is not for everyone, but there is a more affordable choice called "Customer Service", which will eventually differentiate you from the competition and bring you sales out of reliability and quality built within your system.

Customer service does not only entitle customers to a smile, but also to a clear commitment of delivery of the right product at the right time, among other things.

Contact your client to let him know you are enhancing your customer service program and start by asking what product qualities or services would they like to see in the future. Make a list of these client needs and classify them by level of difficulty.

Start by changing those client needs that are the most important for them, and easiest for you to apply. Continue moving up the list until you reach the point of fulfilling your client needs without breaking your bank (lowering your profit). When making financial calculations, take the expenses of customer service as investment in your "brand name".

Remember, low prices are not everything. Give the service and the quality, choose the right target market, plan your business strategy focusing on the unique characteristics you'll offer, and leave the low prices for Wal-Mart. □

Strip Apple Leaders Now

Win Cowgill, Agricultural Agent and Jon Clements, Specialist in Pomology, UMass

'Stripping' is a young tree training procedure used to isolate and protect the 'central-leader' of an apple tree. The three to four buds directly below heading cut on newly planted apple trees developing vigorous upright shoots are the ones we are looking at. Choose the single most vigorous upright shoot to remain as the leader, and then strip (with a downward pull) or pinch out the few (usually 2 or 3) competing shoots directly below the leader shoot you want to save/maintain. These should be removed as soon as possible to focus the growth into the central-leader and prevent a multi-leader tree from developing. Hand pruners may be used. These competing shoots are easiest to identify and remove when 3-4" long. For pictures of the 'stripping' technique, visit the UMass Fruit Advisor, <http://www.umass.edu/fruitadvisor>. Next week: using clothespins to form desirable branch crotch angles. □

Use Clothespins for Good Crotch Angles

Jon Clements, Ph.D., Fruit Specialist, UMASS, and Win Cowgill, Agricultural Agent

After 'stripping' – which was described in last week's publication – the use of clothespins to develop wide (90 degree) and strong branch angles is the next most important young apple tree training technique you can accomplish. NOW is the ideal time to attach clothespins, when young shoots are 3-6 inches long and flexible.

Clip spring-type clothespins to the tree trunk to force acute branch angles into a more perpendicular, (90 degree) angle from the trunk. See the pictures. Take care not to tear or rip the shoots from the trunk when affixing the clothespins. Clothespin all shoots with narrow crotch angles that may form permanent scaffold branches – usually 4-8 clothespins per tree are required. This is assuming you have already stripped (removed) the top 3-4 shoots -competing with the leader as we described in last week's newsletter. After a few weeks, and when the 90-degree branch angle is established, the clothespins may be removed and reattached out onto the shoot tip to help hold it down and keep it growing in a more horizontal position. See our web page at <http://www.umass.edu/fruitadvisor/clements/clothespinrecycle.html>.

Take the time to train young trees with clothespins and you will be rewarded with wide scaffold branch crotch angles that will withstand a heavy fruit load for the life of the orchard. □

Pinch Apple Shoots to Control Growth

Jon Clements, Specialist in Pomology, UMass and Win Cowgill, Agricultural Agent

'Pinching' shoots is a young tree training technique used on mostly first-, and second-leaf apple trees to promote fruiting and manage growth in the top of the trees of vertical-axis, slender-spindle, or super-spindle orchards. Rapidly growing shoots that are six to eight inches long, that are in the top one-fourth of the tree, and that originate from the leader, are candidates for pinching. Pinch-back the shoot two inches using your thumb and finger(s) or pruners. See the pictures to the right. To view a short web video of the technique, go to the UMass Fruit Advisor, <http://www.umass.edu/fruitadvisor/>.

Pinching will do two things: weaken the growth of the developing shoot so it is not as likely to compete with the leader, and promote the development of a fruit bud in the vicinity of the pinch if done now into early July. This technique will keep the tree from becoming top-heavy tree, which will eventually mandate a less desirable dormant pruning cut.



Fruit IPM

Dean Polk, Fruit IPM Agent and David Schmitt, Eugene Rizio, and Atanas Atanassov, Ph.D., Program Associates, Tree Fruit IPM

Peach

✓ **Tufted Apple Budmoth (TABM):** Treatments for TABM should be focused where TABM is a known problem. Degree day (DD) timed treatments are outlined for either alternate middle (AM) applications where 4 sprays are needed per generation, full cover every middle (EM) applications where 2 sprays are needed per generation. *Bacillus thuringiensis* (Bt) and Intrepid require 2 full cover sprays per generation. Timings for these sprays, unless the prediction is too far in the future, are updated from last week as follows:

TABM Spray Timing				
County Area	Spray Type			
	Standard Insecticides -AM	Standard Insecticides - EM	Intrepid - EM	Bt-EM
Southern	1 st 5/31-6/1, 2 nd 6/5-7	1 st 6/2-4	1 st 6/1-7	1 st 6/4-7
Central	1 st 6/1-6/2, 2 nd 6/6-8	1 st 6/2-5	1 st 6/2-8	1 st 6/5-8
Northern	1 st 6/4-6, 2 nd about 6/10-12	1 st 6/7-9	1 st 6/5-11	1 st 6/9-11

✓ **Oriental Fruit Moth (OFM): Oriental Fruit Moth (OFM):** The first generation flight continues to “bottom out” in southern counties. All treatments based on DD timing should have been applied. No additional treatments should be necessary unless trap captures are above the provisional threshold of 6 moths/trap. Growers who wish to utilize mating disruption should begin placing ties or applying sprayable pheromone. See last week’s newsletter for more information.

✓ **Stink Bugs and Other Catfacing Insects:** If using Imidan for catfacing insect control, do not cut the rate. You may have to use the full 3 lb/Ac, especially if orchard blocks have wooded borders or weedy groundcover. Other materials that can be used around fruit thinning activities include the pyrethroids – Asana, Ambush, Pounce and Warrior. Lannate can also be used but is not the best control for catfacing insects. Lannate and pyrethroids increase the risk for mite flare-ups.

✓ **Plum Curculio (PC):** PC is still actively causing fruit injury, but should be tapering off soon. Growers should continue to include effective materials.

✓ **Rusty Spot:** Symptoms began to appear on susceptible varieties last week. Nova should be included in cover sprays until pit hardening, which usually occurs around mid-June. Because fruit development is very staggered applications may need to be continued later than usual. Recent weather has been conducive for rusty spot infections.

✓ **Bacterial Spot:** Symptoms have appeared on leaves in several southern orchards. A few infected fruit have also been seen. Tennocop should be included in cover sprays, or antibiotics applied whenever conditions are favorable for infection (i.e. wetting periods, especially those that are accompanied by wind or damaging storms).

Apple

✓ **Codling Moth (CM):** The first catch or biofix points have been reached in all areas of the state. Timing for the first of 2 sprays for the 1st generation is set at 250DD₅₀ and again at 550DD for standard insecticides OPs, carbamates and pyrethroids, and the newer chemistries Assail and Calypso. The timings for the IGR’s Intrepid, Rimon and Esteem are at 150DD and again at 450DD. The following chart outlines these times for southern, central and northern counties.

CM Spray Timings		
County Area	Application and Insecticide Type	
	Standard Insecticides	IGR’s
Southern	1 st past 2 nd 6/8	1 st past; 2 nd 6/3
Central	1 st past 2 nd 6/8	1 st past; 2 nd 6/3
Northern	1 st past, 2 nd 6/11-12	1 st past, 2 nd 6/7-8

✓ **Tufted Apple Budmoth (TABM):** See peach section.

✓ **White Apple Leafhopper; Aphids (Spirea and Apple Aphids, and Rosy Apple Aphids):** Leafhoppers are now appearing in apples in all counties. Although a nuisance, leafhoppers cause little economic injury and should be tolerated unless sampling indicates a population over 3 nymphs/leaf. Green/Spirea aphid populations continue to build, but are under the treatment threshold of 50% terminals infested. Growers using Assail or Calypso for codling moth control will also control aphids and leafhoppers.

✓ **Fire Blight:** Fire blight infections are showing up in several blocks. If your orchard has fireblight, cover sprays of Tennocop @ 1 pt/acre may help to suppress further infection (Caution-fruit finish may suffer). Apply antibiotics anytime warm rains occur, especially those that are accompanied by wind or damaging storms. Disease predictions indicate that additional infections may occur on 6/2 through 6/7.

SEE IPM ON PAGE 4

✓ **Apple Scab and Other Diseases:** Scab is present in very few orchards statewide at present. Summer diseases, including black rot and white rot are the key diseases to control starting in early June. Combinations with Topsin and Captan have been the most economical, and give broad spectrum control. The strobilurins, Sovran and Pristine are also effective for rot control as well as sooty blotch and fly speck. Flint is suppressive for rots, so does not give the control found in Sovran or Pristine. Use higher rates of strobilurins where scab is present.

Scouting Calendar

The following table is intended as an aid for orchard scouting. It should *not* be used to time pesticide applications. Median dates for pest events and crop phenology are displayed. These dates are compiled from observations made over the past 5-10 years in Gloucester County. Events in northern New Jersey should occur 7-10 days later.

Pest Event or Growth Stage	Approximate Date	2007 Observed Date
Petal Fall Peach	April 16 +/- 14 Days	May 1
Oriental Fruit Moth - 175 DD	April 19 +/- 12 Days	May 2
Apple Scab leaf lesions observed	April 28 +/- 07 Days	May 7
Shuck Split Peach	April 29 +/- 07 Days	May 7
Plum Curculio Injury	May 05 +/- 16 Days	May 8
CM Biofix	May 14 +/- 16 Days	May 9
TABM Biofix	May 04 +/- 10 Days	May 10
Oriental Fruit Moth - 375 DD	May 10 +/- 10 Days	May 14
GAA colonies	May 05 +/- 17 Days	May 18
CM 1 st generation 150 DD target	May 18 +/- 04 Days	May 18
Bact. Spot Leaf Symptoms observed	May 15 +/- 21 Days	May 22
Rusty Spot symptoms observed	May 12 +/- 10 Days	May 25
OFM Flagging observed	May 15 +/- 04 Days	May 25
CM 1 st generation 250 DD target	May 28 +/- 07 Days	May 25
2 nd Pear Psylla hatch	May 30 +/- 02 Days	Not yet observed
TABM 1 st gen. 475 DD target (start)	June 02 +/- 07 Days	Not yet observed
CM 1 st generation 450 DD target	June 04 +/- 08 Days	Not yet observed
CM 1 st generation 550 DD target	June 09 +/- 07 Days	Not yet observed
TABM 1 st gen. 910 DD target (end)	June 18 +/- 10 Days	Not yet observed

Blueberry

✓ **Cranberry Fruitworm (CBFW):** Adult populations continue to increase, although we have not reached a flight peak. We have identified 5 areas in Atlantic County where populations are higher than the norm (10 moths/trap or higher). Growers who have fields with these population levels should consider a first treatment by the end of the week. If not using Esteem or Confirm early, then Lannate or Diazinon applied this week will target CBFW adults and hatching larvae, and suppress early aphid populations.

✓ **Leafrollers:** Larvae are being found on occasion in tray and shoot samples. About 12% of samples have been positive and all levels seen are under threshold.

✓ **Gypsy Moth:** Overall, the larval populations in blueberry fields continue to drop. However, 46% of samples were found positive, with about 4% still being problem populations. Some fields which were treated a couple of weeks ago are now experiencing a second buildup starting around the perimeter of the field. This is caused by the "blow ins" from the larvae in surrounding forests. Injury takes place much faster at this point since the worms are larger, and feeding is more pronounced. *Do Not* use B.t.s or Confirm for Gypsy moth at this point in their development.

✓ **Aphids:** As expected, populations are building. Colonies are being seen more frequently and colony size is also increasing. Scouting results show that 56% of samples have been positive with 15% over the 10% infestation level. Remember that Provado and Actara work well on aphid populations, but do not affect Gypsy moth or Cranberry Fruitworm.

✓ **Thrips:** We are finding thrips in 60% of our samples, which is nearly the frequency we reported last week. The level of infestations has increased somewhat but none have reached even half of threshold.

✓ **Plum Curculio (PC):** Adults are being seen less frequently than last week, and are present in 10% of samples. A total of 1/3 of all fruit samples show PC injury from egg laying or feeding. Where injury is present the percent fruit injury is usually very low. However 8% of samples do show over 1% injury. Most of this damage likely took place during late bloom.

SEE TRAP COUNTS ON PAGE 5

Trap Counts

Tree Fruit Southern Counties

Week End	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
4/14	0				0		0			
4/21	21				0		0			
4/28	175	0			23		44	0	0	
5/5	101	0	1		56		49	0	0	
5/12	83	0	1		26		30	0	0	
5/19	78	5	6		25		16	8	84	
5/26	21	30	3		4		9	31	57	

Tree Fruit Northern Counties

Week End	STLM	TABM-A	CM	AM	DWB	OFM-P	TABM-P	LPTB	PTB
4/14	0					0			
4/21	23					0			
4/28	1120					0			
5/5	834	0	0			2.3	0		
5/12	729.0	0	0.2			38.6	0		
5/19	456.3	3.5	5.1		6.0	40.2	6.1	7.5	0.0
5/26	55.8	9.0	6.4		6.6	17.3	10.0	24.6	0.0

Blueberry

Atlantic County

Week End	CBEW	RBLR	OBLR	SNLH	OR BEET	BBM
3/31			46			
4/7			50.5			
4/14			6.1			
4/21			30.9			
4/28			82.7			
5/5			48.9			
5/12	0.01		9.02			
5/19	0.48		4.54			
5/26	2.38		0.43			

Burlington County

Week End	CBEW	RBLR	OBLR	SNLH	OR BEET	BBM
3/31			0			
4/7			13.7			
4/14			7.0			
4/21			8.1			
4/28			44.4			
5/5			43.0			
5/12	0.04		13.79			
5/19	0.18		3.75			
5/26	0.42		0.27			

Fruit Crop in North Jersey- As I See It

Win Cowgill, Agricultural Agent

Both the peach and apple crops appear to have set well and continue to mature. Peaches set well with the exception of a few California varieties that were lost over the winter. One grower in Warren reports some frost damage at bloom that has resulted in a lot of fruit drop. For the most part peaches are sizing rapidly and must be hand thinned by pit hardening, earliest maturing varieties first.

The warm sunny days over the long weekend have made it easy to see the results of chemical thinners applied last week during the 8-15MM state in North Jersey. At the Rutgers Snyder Farm all treatments were highly effective. King Fruit size is 14-18mm. Note: It takes a full 7-9 days to evaluate the results of 6BA (Maxcel) applications.

Once apple fruit reaches 18-20 MM or larger the only effective rescue thinning treatment is with Ethephon. For detailed information on the use of Ethephon for late thinning see the University of Massachusetts fact sheet F129A at the UMASS Fruit Advisor Website at:

<http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>. □

Annual Tree Fruit and Wine Grape Research Meeting

Tour and Picnic at Rutgers Agricultural Research and Extension Center

Jerome L. Frecon, Agricultural Agent



Shiraz grapes from the variety collection at the Rutgers Agricultural Research and Extension Center in Upper Deerfield Township.

Our Annual Tree Fruit and Wine Grape Research Meeting will be held on June 26, 2007 at the Rutgers Fruit Research and Extension Center in Upper Deerfield Township, Cumberland County. This meeting will commence at 5:15 with a tour of the research wine grape and tree fruit plantings and this growing fruit facility. Dr. Mark Robson, Director of the New Jersey Agricultural Experiment Station will be on hand to welcome the groups as well as present new methods for pesticide exposure measurements. Dr. Peter Shearer, Dr. Norman Lalancette, Dr. Brad Majek, and Dr. Dan Ward and their associates will be on

hand to share the latest research results and tour new production technology. Dr. Audrey Moore USEPA Region 2 Regional Ag Policy Specialist will also discuss EPA work with the station in pesticide registration. Ms. Melissa Bonham, IR-4 Field Research Coordinator will discuss current research new product registration with fruit crops.

Display and demonstration will also be held near the picnic pavilion. Dr. Dan Ward will discuss How do cultural practices affect peach storage performance? How do we assess fruit quality? Can we measure fruit sugar without juice? What about firmness. Any early ripening peach and apricot cultivars available will be in display.

These demonstrations and a catered picnic will be available at the completion of the tour.

New Jersey pesticide applicator recertification in CORE and other categories will be available for all applicators.

Future details of all meetings will be posted at the website <http://gloucester.rce.rutgers.edu>

The detailed program will be in future editions of the newsletter and mailed to interested growers. Contact Jerome L. Frecon at 856 307-6450 Ext 1 or frecon@aesop.rutgers.edu for preregistration to the meeting. □

Climate and Farming Survey

Climate Change and Agriculture: Promoting Practical and Profitable Solutions has developed the ClimateandFarming.org website, investigating on-farm crop biofuel production and climate change issues impacting agriculture in the Northeast. With funding from the Cedar Tree Foundation, they are helping to spread knowledge about farming for fuel and local fuel production in the Northeast. The project is lead by Bill Burtis at Clean Air - Cool Planet and Dr. Vern Grubinger at the University of Vermont. Their advisory group includes faculty from University of New Hampshire and Cornell University.

A web-based survey designed to capture interest and need for information among farmers is now available through the climateandfarming.org website at the link below. The survey targets the agricultural community, and the results will be used to help us organize an educational conference that will take place later this year or early in 2008.

The survey link is:

http://climateandfarming.org/survey_all.php

Calendar of Events

May 30, 2007 – 6:15 p.m. – Twilight Wine Grape Meeting, Auburn Road Vineyards, 119 Sharptown Road, Pilesgrove, NJ. Contact: Jerome L. Frecon, 856-307-6450 Ext. 1.

June 26, 2007 – 5:15 p.m. – Twilight Tree Fruit & Wine Grape Meeting, Tour and Picnic. Rutgers Agricultural Research and Extension Center, 121 Northville Road, Bridgeton, NJ. Contact: Jerome L. Frecon, 856-307-6450 Ext. 1.

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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The pesticide user is responsible for proper use, storage and disposal, residues on crops, and damage caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact RCE in your County.

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