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CRANBERRY VINE

September 2000

To harvest or not to harvest?
Since you may lose money by harvesting, growers (especially dry picked) may be tempted to not harvest certain beds. What will happen if you don't? According to Patty McManus, UW-Madison Extension Plant Pathologist, "for the long-term health of your cranberry plants, fruit should be harvested as usual in 2000, even though you won't be able to sell all the fruit. In particular, DO NOT LEAVE A BED WITH SEVERE COTTONBALL UNHARVESTED. The reason is that the fungus overwinters completely and entirely in old, mummified, cottonball fruit. When you harvest a bed and remove fruit, you also remove most of the cottonball inoculum for the following year. If you leave the inoculum in the bed, expect big problems in 2001 and for years to come. Nobody knows how long the mummified fruit survive in a bed, but if the cottonball fungus is like a related fungus that causes white mold on beans, it could be DECADES. Any money or time you save by leaving a cottonball bed unharvested in 2000, you'll pay for later (big-time). For fruit rot diseases, it is of less concern than cottonball. For example, if you left the bed unharvested, you'd be leaving behind 5% rotten fruit and 95% healthy fruit. Healthy fruit can have fungal pathogens inside, but it's predominantly non-pathogens or the "iffy" berry speckle pathogen Phyllosticta elongata that inhabit healthy fruit (maybe that's why they're healthy!). So, healthy fruit probably don't carry a lot of pathogen inoculum through the winter. Also important is the fact that most fungal pathogens sporulate profusely on old or dead leaves, but not so much on fruit. And leaves outnumber fruit by far. So, even if pathogens did overwinter in unharvested fruit, the amount would be negligible compared to the amount overwintering in all those leaves. Yes, harvest removes leaves as well as fruit. But a lot more leaves get left behind than get harvested, and they don't cause big problems in most years".

In summary, she feels leaving beds unharvested is a good strategy for dealing with the 15% hold back. But, if it becomes the only option, then think hard about cottonball and all the other complications (such as, how are you going to harvest in 2001 if 2000 berries are still hanging on the vine?). But don't let fruit rot contribute to your list of worries.

Fruit Disposal.
If you have to throw away fruit the following are some general guidelines from Wisconsin: 500 feet from residence, 250 feet from private water supply wells, 200 feet from surface water and drainage ditches, 3 feet from groundwater and 1200 bbls/acre (about 1" fruit) is the maximum recommended land spreading rate. The 1200 bbls/acre land spreading rate will not effect soil pH and should provide ample N for crops grown on that soil in subsequent years. For hay crops/pasture land they recommend 400 bbls/acre. Because of the sizeable amount of fruit needing disposal, composting was not listed as a viable recommendation. For small volumes of fruit it should not be a problem. From a source of disease inoculum perspective, recommendations are to keep the disposal a 1/4 mile from beds.

Wetlands, abandoned beds and new crops.
According to the Army Corps of Engineers, who regulate wetlands, if you abandon beds you may need to go through a permitting process to farm them again. The actual specifics of the abandonment clause are vague. To be on the safe side you should do at least a little farming on every bed every year. If you convert from cranberries to another crop, then you may be

subject to more permitting restrictions if that crop is not a wetland crop. For example, it would be fine to grow wild rice (although you would lose money) but if you grew potatoes (not a wetland crop) then you would need a permit and have to mitigate etc. As an aside, according to the Army Corps, Southwest Washington growers should expect more restrictive wetland regulations in coming years due to the ESA listing of the cutthroat trout for our region.

New label for Roundup ®.
Attached are the supplemental label changes for Roundup Ultra ®. We have been working on this for many years and I am surprised that it actually happened. In any case, here are what the supplemental labels mean. *For spot treatment of dry ditches*: this a now a legal application and a good way to clean up the weeds encroaching on to the beds. *For post harvest spot treatment of weeds*: finally you have a good tool to clean up beds from perennial weeds. It is not perfect and needs to be done precisely according to the label. Read the label carefully. We have had good weed suppression when ½ to 1% Roundup is applied at 100 gpa (spray to wet) when the vines are dormant and the weeds have good heathy green foliage. You will need to combine it with Casoron in the spring to actually get control. Harvesting, however, may beat up the weeds and there is often little left to spray.

This treatment is not without problems. I have seen dead vines from winter applied Roundup. This occurs on new plantings that have never really gone dormant, on bearing hybrid beds where the product is applied too late in the winter after they have lost dormancy and when too much product is applied (ie. when it was sprayed to runoff not sprayed to wet). What weeds should you consider this application for? Anything that is green - including most herbaceous broadleaves like silverleaf, and rushes like arrowgrass and tussocks. There are four conditions where I would be concerned about the use of a dormant Roundup spray:

1. For lotus and clover - Stinger works better
2. For growers in Bandon during mild winters when vines might not go completely dormant
3. For beds which have weeds that Roundup doesn't do much for (like clover)
4. For new or young beds that have been vigorously growing into late fall.

Cheap ways to control weeds and insects.
Prolonged post-harvest/winter flooding is not a common a practice in Washington. There is anecdotal data to suggest that several weed and insect species would be susceptible to this practice. It is also good for vole control. University of Massachusetts recommends fall flooding for bramble control and cranberry fruitworm. I would like to gather some data on this effect and need some beds to work on. If you are interested let me know. As an aside, this method also has potential for income. Flooded beds make wonderful habitat for waterfowl. One Washington grower flooded most of last winter just for hunting. In Texas, where I use to live, I knew many a farmer who made more money from hunting leases on their property than from farming.

Alternative Crops.
Those of you not at field day missed my dog and pony show on alternative crops for cranberry growers. I still think there are some options other than cranberries and if you are interested let me know. More to the point, I am interested in cooperators to put in trials.

To renovate or not?
If I had to guess at it, I would say the breakeven production point (assuming average inputs) for the $10 to 20/bbls price is well above 300 bbl/ac, at $40/bbl it is at least 150 bbls/ac. It doesn't make sense to farm now or at least for the next 5 years any beds producing less than 60 bbls/ac. From an economic point of view, now is the ideal time to take out unproductive beds. Renovation is not cheap however. If you have beds overcome by weeds, but good vines, then there are some other options. Consider winter flooding or taking it out of production, for a few

SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR ROUNDUP ULTRA® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup Ultra herbicide and this supplement.

Roundup ULTRA®
HERBICIDE

EPA Reg. No. 524-475

Roundup Ultra is a registered trademark of Monsanto Company.

POST HARVEST SPOT-TREATMENT OF WEEDS IN CRANBERRY BOGS.

Keep out of reach of children.

CAUTION!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of herbicide application.

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY® CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION" and "MIXING" sections of the label booklet for Roundup Ultra® herbicide for essential product performance information.

USE INSTRUCTIONS: Application of this product may be made after the harvest of cranberries to control weeds growing within the field. Best results will be obtained if applications are made to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in the Roundup Ultra herbicide label booklet may be used. If using hand-held sprayers, use a 0.5 to 1 percent solution of Roundup Ultra herbicide on a volume-to-volume basis with water. Spray to wet vegetation, not to run-off. If using hand-held boom sprayers, apply 2 to 4 quarts of this product per acre.

PRECAUTIONS, RESTRICTIONS: Make applications only after cranberries have been harvested. Do not treat more than 10 percent of the total bog. Allow a minimum of 6 months after last application and next harvest of cranberries. Do not apply this product through the irrigation system. Do not make applications by air. Do not apply directly to water.

Even though vines appear dormant, contact of the herbicide solution with desirable vegetation may result in damage or severe plant injury. Cranberry plants that are directly sprayed may be killed. Use nozzles that emit medium to large-sized droplets to minimize drift. The likelihood of crop injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing, or when there are other meteorological conditions that favor spray drift. Avoid drift. Extreme care must be used when applying this product to avoid injury to desirable plants and crops.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Roundup Ultra herbicide before using. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

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SPOT-TREATMENT OF WEEDS IN DRY DITCHES IN CRANBERRY PRODUCTION AREAS.

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USE INSTRUCTIONS: Directed sprays may be used to control weeds growing in the interior and perimeter ditch areas of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in the Roundup Ultra herbicide label booklet may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers, use 1 to 2 percent solution of Roundup Ultra herbicide on a volume-to-volume basis with water. Spray to wet vegetation, not to run-off.

PRECAUTIONS, RESTRICTIONS: For treatments after drawdown of water in dry ditches, allow 2 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds. Allow a minimum of 30 days between last application and harvest of cranberries. Do not apply this material through the irrigation system. Do not make applications by air. Do not apply directly to water.

Contact of the herbicide solution with desirable vegetation may result in damage or severe plant injury. Use nozzles that emit medium to large-sized droplets to minimize drift. The likelihood of crop injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing, or when there are other meteorological conditions that favor spray drift. Avoid drift. Extreme care must be used when applying this product to avoid injury to desirable plants and crops.

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years and using non-conventional methods to clean it up.

New publication.
" Nitrogen for Bearing Cranberries in North America". Check out the new 17-page color brochure. This slick publication was put together by research and extension people from all around North America and is a must read. It is available for $3.50 from OSU-(EM8741). It can also be downloaded in PDF format at http://eesc.orst.edu/tango/pubsearch/0110.qry?function=search

New plantings.
I am not sure how many times I heard this story - the one about the grower who planted vines that fours years later were not what they thought they were. Perhaps 3 to 5 times a year! With prices being what they are you can't afford to have this happen to you. Look at the bed your are going to get vines off of before it is harvested to better assess what you are getting. Look for uniformity in crop and vine color, high production and no weeds.

Winter workshops.
I have to start planning for winter programs. If you have an interest in a particular subject, like debt management or Chapter 12, please let me know.

Section 18 Reporting.
We are required to report the total volume and acres of Orbit and Stinger that were used this year. Make sure that you put it down in your Ocean Spray report so we can get the data from Kevin Talbot.

Grower funding of On-farm research.
The Western Region of Sustainable Agricultural Research and Education has a call for proposals from farmers to do their own on-farm research. For more information please contact me.

Websites of interest.
The GoodFruit Grower has an Award Winning Sites and is packed with Agricultural information.
http://www.goodfruit.com/links.html

One of my personal favorites has everything you could possible need to stay informed or do business all under one site.
http://www.ceoexpress.com

WEATHER

	Rainfall (Inches)					Growing Degree Days				
Month	2000	1999	1998	1997	20 yr average	2000	1999	1998	1997	10 yr average
January	10.7	15.5	18.5	14.9	10.8	5	14	58	43	40
February	7.0	21.2	11.4	5.6	9.3	40	10	69	21	55
March	7.9	12.0	10.2	16.2	9.5	25	36	97	38	72
April	4.2	3.6	3.0	6.5	5.6	151	87	99	91	116
May	5.2	4.4	3.8	4.7	3.8	237	180	265	344	216
June	5.1	4.0	1.8	5.1	2.8	342	329	350	362	323
July	0.5	1.9	1.1	1.2	1.9	426	376	476	476	421
August	1.4	1.9	0.2	2.7	1.7	437	474	484	543	440
September		0.6	0.7	6.9	4.1		333	369	477	363
October		5.6	6.2	15.6	6.5		193	244	229	217
November		16.3	19.6	6.5	11.4		138	99	144	99
December		16.0	20.3	9.0	12.6		39	34	38	41
TOTAL		103.0	96.8	94.7	80.5		2209	2644	2806	2402

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