

Cranberry

Crop Management Newsletter

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GROWING SEASON PROGRESSES

The 2008 growing season got off to a moderate start, following a snowy winter. Most cranberry plantings appeared to have wintered quite well. Plant growth was perhaps a bit slowed this spring due to the prolonged cool wet weather that we had to put up with. As the growing season progresses, it appears that we continue to lag slightly behind the average pace, during the spring and early summer of 2008.

It wasn't till the mid to later part of July that day time temperatures pushed hard to get up in to the 80 degree range. In the meantime, growth and bloom came off quite well. We had an excellent bloom and bloom period, this year. Fruit set is being reported as excellent and berries are sizing well. Heat unit accumulations up to the third week of July have averaged about 17% less than normal in the cranmoor to warrens area and 18% below the same period in 2007. It's the heat and sunlight that drive the growth within the plant, and while our growing season appears to be coming along quite well, it may be lagging a little as we approach the remainder of the 2008 season.

Weather conditions as we head in to the first part of August have warmed up a little. Crop response continues at a steady pace. Heat unit's accumulation as of August 1 has not changed much from the later part of July. Growing Degree Day accumulations, (GDD), continue to run about 15% below normal ranges, and 18% behind last years temperatures for the same period. Growers continue to report similar observations with berries appearing to be about 7-10 days behind in the central production areas, and 10-14 days behind in the northern production areas. While we are not always certain at what level of GDD accumulations that cranberry can actually be considered "mature", we appear to be on track at this part of the growing season.

Insect development reflects this lag time as well. For the most part, fruit worm activity has been addressed, while flea beetle and girdler populations appear to reflect the 7-10 day lag in heat units and are just now being addressed across all production areas. As the heat unit accumulations drive the crop, they too drive insect activity and development.

*Tod Planer
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MID-SEASON NUTRIENT MANAGEMENT ACTIVITIES

It is during this part of the growing season, that your pre-season planning activities begin to substantiate your management decisions. While you may have planned to apply specific grades or blends of fertilizers on specific dates, weather and time often change those plans. This is the period of the growing season when you analyze what you are doing as compared to what the plant response shows you. Unfortunately, crop production isn't always that simple. Rain or drought events often change your plans, or the plant's response, depending on the situation.

Flexibility needs to be built in to any nutrient plan. As a grower, you need to be flexible to meet the needs and demands of the cranberry crop, while looking at the large picture of nutrient use and crop response. By early to mid August, you should have a pretty good feeling for the fertilizer applications up to this point in the growing season.

What you have done up to this point is mostly directed toward next seasons outcomes, even though you currently view this seasons results.

It is at this point that your next step is to collect your tissue sample for this growing season. Results from that sample tell you much about what you have done, as well as what and how your cranberry plant has responded. Analyzing the results you need to determine "what changes do I need to make?" or do I "Stay-The-Course?" Making sure that you have sampled the "correct" part of the plant, should give you some faith in the plant response to your management up to this point. While some growers are unsure that tissue sampling is all it is cut out to be, it still gives you the best "look-see"

that the plant can offer you at this point in the growing season. Little or no change in tissue levels should give you confidence that what you are doing is headed in the right direction as far as crop response is concerned. Declining nutrient levels might indicate a larger than normal crop response, or a continued decline in plant nutrient that may need to be addressed in your fertilizer program. In any event, you have the flexibility to adjust at this point.

Do your pre-harvest yield estimates reflect how you "eye" the crop with regards to yield? Do the estimates reflect good return on your fertilizer program at this point? Do you need to "correct" some area in your program, not previously noted in your plan efforts? All these activities need to come at this part of the growing season, as part of your total nutrient planning efforts.

From this point on, your harvest and yield data will complete your planning efforts. How did this crop stack up with previous crops? How does yield fit in a 5-year average? How much if any change has occurred in my nutrient use? Have I saved money without impacting crop yield? What plan changes do I want to incorporate in my 2009 pre-crop plans? All these comments and suggestions fit nicely into the end of year notes you should incorporate into your nutrient plan. They will be helpful as you plan the 2009 crop

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WEED CONTROL: HOW DO I USE GLYPHOSATE?

1. Only mix materials prior to usage. Long term storage may reduce efficacy. Freezing may also reduce efficacy.
2. Use clean water. Don't scoop water from reservoir (iron & organic material in water can reduce efficacy). Treated water from a water conditioner or rainwater works well.
3. Don't mix in metal containers. Rust and other metal by products can reduce efficacy. Use only plastic containers that have been clearly marked.
4. Round Up is a systemic herbicide that is transferred downward towards the root system. Consider using lower rate solutions. (10-15% solutions work better than 20-25% solutions). The label encourages the use of 2% solutions for control of many trees (willow & aspen).
5. Additions of fertilizers such as 21-0-0 may enhance glyphosate uptake on treated plants. Other surfactants may also improve weed control. Many new formulations of glyphosate are now mixed with their own surfactants.
6. When hand wiping; wipe the target weeds from the bottom upwards. Plants have more stomates and thinner waxy layers on their leaf's undersides. More material will enter the plant if wiped from the undersides.
7. Use color dyes to enhance hand wiping. Dyes will show you which plants have been wiped.
8. Ideal wiping conditions are calm, warm and humid days. The longer the material remains on the leaves surface the greater the amount of material absorbed into the plant.
9. When using a mechanical wiper, it is best if the plant's can be wiped from both directions. More difficult to control weeds such as: trees, goldenrod, yellow loosestrife, asters, sedges and grasses are controlled better this way.
10. Explain to new employees how this material works and demonstrate effective wiping techniques. A little education can prevent a lot of unnecessary vine injury. Explain that glyphosate is a non-selective herbicide and it will kill vines.
11. Glyphosate may be wiped with liquid 2, 4-D. Reduce the rates of each material. Avoid over application and wiping on hot, windy days. 2, 4-D is very volatile can easily drift from the treated plants to vines causing unwanted vine injury.
12. Mixing Stinger with glyphosate is not recommended. The products may be antagonistic to each other.
13. Growers can direct spray drainage ditches and bed ditches with glyphosate provided that the ditches have been drained and will remain drained for a period of seven days after application. This treatment requires a supplemental label. Sprayed treatments over ditch water to control aquatic weeds are prohibited and will require a DNR permit.
14. Don't forget that glyphosate has a 30 day pre harvest interval. If you tank mix glyphosate with another material, be sure to check the pre harvest interval of the other chemical.

*Leroy Kummer
Ocean Spray Field Services*

OBSERVATIONS FROM THE FIELD

BLOOM; It is July 30th and we still have marshes showing 15% of the bloom remaining! I know that we are 200 + growing degree days behind the norms but it is very unusual to see this much bloom. Grower speculations are: A late flood this spring. One grower put water back on during all that frost protection time in early May and when he pulled it down to a surface flood he didn't start protecting until May 7th or so. Another didn't protect during those early periods as he felt that his buds were not moving at all so there was no concern for protecting. While another started protecting two weeks prior to that real cold snap and his vines are way ahead (marshes are within a stones throw). Yet another speculates that the Casoron really held things back this year as he now is starting to see the red tips from the granular herbicide and he, too, still sees bloom on his Stevens vines. There are probably 110 reasons for the late bloom in Wisconsin but it really makes one think about our Springs and what we can do to get a jump start. What do you think the reasons are for late bloom?

HAIL AND OTHER STRESS ENCOURAGES VEGETATIVE GROWTH:

In 2008 some of our growers have already been hit with 5 different hail events! Jackson County growers were seriously injured early this spring with unforgiving hail. Dealing with hail stress in one thing but the bigger picture is that without crop those uprights have a tendency to grow quickly and excessively. It is tough to fertilize areas that need to feed a crop and two inches away starve an upright that wants to remain vegetative. In addition to the fertility issues we have tipworm challenges. Tipworm love

to feed in vegetative areas. They enjoy the tasty morsels of the tender growth of those uprights. We see side shooting from the old tipworm damage but immediately the pests start feeding on the new growth. Thus a vicious cycle starts of damaging and mending and damaging uprights. Because Dan Mahr and Jack Perry are doing research on tipworm and its control we are learning about timing and products. Some of us are forced to go at the control with a vengeance – let's face it, if we allow the tipworm to take the terminal bud we will NOT have a crop in those areas in 2009.

Most recently a grower shared with me that he did not have hail on his marsh but he felt that nearly 50% of his tips have tipworm damage on Stevens. As we talked, I asked him what happened last fall, did you use any new harvest equipment? Did your flood go on ok, or did you have exposed uprights? Did you sand? Did you plow the snow off or did you pack it? What happened this spring? Did you Flood for frost protection? Did you run the irrigation system for protection? And the series of questions continued until, together we discovered that a good number of injuries had occurred to the vines in question and of course the tipworm moved in to the vegetative growth. Those vines are not producing very well yet one can not blame the tipworm for the entire loss. Tipworm are always present but they truly prey on vegetative growth – it is like choosing between pieces of prime rib or settling for a hamburger. Which tasty morsel would you go after?

JUST A FEW OTHER OBSERVATIONS:

Stem Gall or Canker is showing its ugly face in Wisconsin. As a matter of fact I have seen more cases this year than I have in the past 5 years. I believe that our Cold Winter and Wet spring had something to do with

this phenomenon. Remember that sanding is a good practice when you see this happening. When we sand we allow a new root to start and we may not lose as much vine density.

I am pleasantly surprised to report that Yellow Vine syndrome is not showing on our marshes this year. Remember that this is caused by HEAT stress so it may start to show in the weeks to follow.

Never a dull moment in our Cranberry Land

Jayne and Pamela Sojka and the Buggetts

DON'T LET YOUR GUARD DOWN WITH LOOSESTRIFE

Purple loosestrife is a perennial wetland plant, often averaging 3-7 feet tall with conspicuous purple flowers. Often growing in bunches of multiple stems, it can spread by seed and underground roots. Late July and August is usually the prime time to observe this invasive species on your marsh. The plant's favored habitats include marsh areas, stream edge, ditch banks, and sedge meadows. It is tolerant of a wide range of soil types and favors neutral to acidic soils. While spreading mainly by seed, this plant easily re-establishes from root fragments when pulled hastily from its site. Care must be taken when rouging these plants to not deposit seed or leave root material in place. While not a weed of cranberry production areas, it has the potential to over take large expanses of adjoining marsh land in cranberry growing areas. When physically removing purple loosestrife plants, it is extremely important to dispose of them in a manner that will not allow seed or root fragments to

re-establish the plant at the disposal site.

While physical and mechanical methods can help to eradicate the plant, chemical spot treatment possibly gives a better chance of removal of the entire plant system. Unfortunately, chemical control is best achieved prior to bloom. Growers often realize the weed presence after bloom and seed development has begun. Several chemical options exist for control. Working as a team, the cut-stump approach similar to other weed problems in cranberry, works well for purple loosestrife too! Cutting the top growth and carefully removing the plant with out dislodging seed is important. Then as with other weed types, treat the cut stem with the typical Glyphosate 3-10% stump solution. A 1% solution covering at least 25% of the total foliage is needed if the plant is not removed. Additional products with potential use include the products "Rodeo" and "Garlon 3A", but be sure to check labels on these products as well, to insure the proper use of them in controlling loosestrife. A new approach is looking at a biological control using specific specie of beetle that feeds on the plant. If you have serious infestations of purple loosestrife and want to investigate biological approaches, several agencies including WDNR, and local Land Conservation Offices, are involved in this new area of loosestrife control

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