PREMATURE LEAF DROP

I've seen some cases and heard several complaints of premature drop of last year's leaves. In most cases, this year's growth is vigorous and leaves look healthy. I cannot be certain of the cause for premature leaf drop-it's probably a combination of factors including the heat of last summer, the cold of last fall and winter, plus several unknowns. However, in several cases, the leaves that dropped early showed a lot of Proventuria (Gibbera) leaf spot.

This disease is common only in beds that have not been treated with fungicides. The symptoms are small reddish or purple spots that appear on the upper surface of the current year's leaves in September or October. The following spring, the spots enlarge, fade to a yellowish color, and become less distinctly outlined. By mid- to late-July the fungus forms small black fruiting bodies, and spores are released during late summer. Affected leaves turn chlorotic and can drop prematurely. The fungus can also cause a speckle on berries, but fungicides applied for control of fruit rots will also control Protoventuria. Fungicides to control the berry speckle phase are not warranted if fruit is destined for processing.

The long-term effect of the leaf spot phase of this disease is not known. However, it may be a contributing factor in premature leaf drop, especially if vines have experienced other stresses.

Patty McManus, UW-Plant Pathology

OBSERVATIONS FROM THE LADY BUG REGION

Have you noticed the fragrance from the cranberry blossoms? The honey bees and bumble bees are working the best that we have seen for a long time. Granted some growers in the past have had aggressive bees, but generally speaking in the counties that we travel 1996 is going on record for being one fantastic year for pollination. Our bee keepers have remarked that their bees are actually making honey this year!

From time to time we see things in the field that are quite rare and surprising. We have been keeping a watchful eye on some Stevens vines that have "chosen" to run. Now these Stevens runners are about one to one-and-one-half feet long, but they are producing fruit! Midway up the runner we saw hooks, then pods, and today (July 15) we saw pea sized fruit setting! You've heard the old cliché "When there's a will, there's a way" Well. . . . .

Fruitworm are now entering some early pea sized berries, especially in the banana belt where we werre nearly 50% out of bloom last week (July 12). Remember to time your insecticide well to control these pests. Some of our flights are still climbing which indicates that hatch does not happen in one day. Take a moment to walk each variety and jot down pods, blossoms, and pinheads and peas to see just what percent out of bloom you really have. A windshield assessment is not enough at this point.

In checking for winter damage, please search for canker in your vines. Carefully look at the injury, cutting the stem to see if it is moist inside or dry and brittle. This is such a strange

phenomenon that we are once again grasping at straws searching for a cause as to why it is here. Any theories?

Red shoot has appeared in the McFarlins most recently. It is growing very close to the ground and hasn't yet grown above the vines.

I commend those growers that have used Pyrenone during flowering in controlling BHFW. We have found excellent control and very little fireworm burn. Hey, GREAT JOB! Timing and appropriate rates is what IPM is all about.

Jane Sojka, Lady Bug IPM

CRANBERRY EVAPOTRANSPIRATION

A common rule of thumb for cranberry growers has been to apply one inch of water per week during the growing season. If insufficient rain is received growers irrigate to supply this amount of water. To reduce the potential for leaching nutrients and pesticides through sandy soils and to reduce production costs, growers can refine their irrigation practices by irrigating based on a percentage of standard evapotranspiration (ET) values. The first step in this process is to determine standard ET values for cranberry.

Evapotranspiration is the loss of water from a bed via evaporation from the soil surface and transpiration of water through the leaves and fruit. Evapotranspiration does not include water that moves downwards through the soil and drains away. So, in short, evapotranspiration is the sum of "upwards" water loss into the environment. There are at least two approaches to measuring ET for a given crop. One is to use a weighing lysimeter (a large truck scale is buried in a field and weight measurements are taken frequently. Changes in weight are caused directly by water addition or loss) and the other is to compare to a common crop like turf or alfalfa.

Research was conducted in Washington in 1991 and 1992 to determine a reference ET compared to alfalfa and turfgrass. Cranberry ET was about 55% of alfalfa ET. The reference ET values for alfalfa sometimes exceeded 1 inch per week. Cranberry ET, however, NEVER exceeded 2/3 of an inch per week. This suggests that if growers are applying an inch or more of water per week (except for frost protection) they may be overwatering. According to this research applying 2/3 of an inch of water per week would replace the water lost through evapotranspiration.

The equations used in this research are driven largely by the amount of light energy received over time. Because of this, the equations and conclusions of the data may be applicable to growing areas outside of the Pacific Northwest.

Cranberry leaves have a thick waxy cuticle that limits water loss. Stomata are found only in the lower leaf surface and are sunken to minimize water loss through stomata. Because of this it is not surprising that cranberries would not use large quantities of water. New beds that are not vined over would require more water as greater quantities of water would evaporate directly from the soil surface.

While more work will need to be done to use ET values directly to determine irrigation needs for cranberry, this research strongly suggests that growers can apply less water to cranberry beds and still supply the water needs of the plants. Growers may wish to evaluate their irrigation program and see if some water savings are to be had with irrigating no more than 2/3 of an inch per week.

Teryl Roper, UW-Horticulture

Note: This article was taken from a paper entitled Cranberry Evapotranspiration by M.J. Hattendorf and J.R. Davenport and published in HortScience, June 1996.

I recommend to you to take care of the minutes; for hours will take care of themselves.

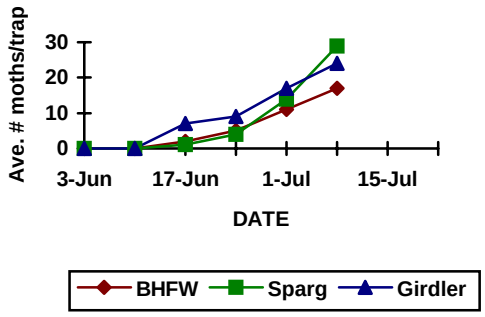
Lord Chesterfield

1996 Pheromone trap counts

Cranmoor area includes:	Adams, Portage and Wood counties
Warrens area includes:	Jackson, Juneau and Monroe counties
Northeast area includes:	Forest, Lincoln, Oneida, Price, and Vilas counties
Northwest area includes:	Barron, Burnett, Douglas, Rusk, Sawyer, and Washburn counties

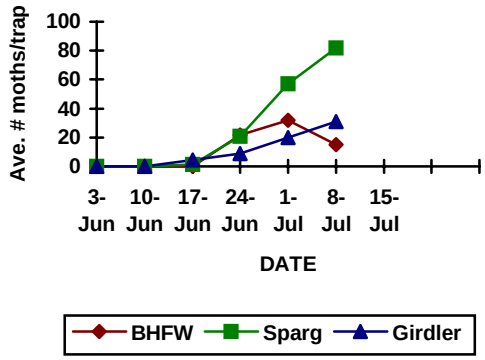
Please note that different regions may have different scales on the left axis. Doing this allows greater accuracy in determining actual values within a region. However, comparisons between regions are more difficult. Please use caution in making comparisons of these averages to trap counts on your marsh.

Northwest Area

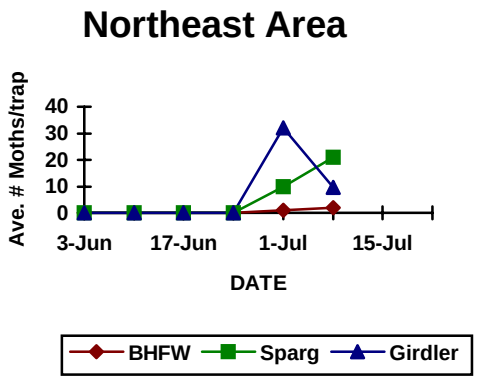


Means from 8 growers

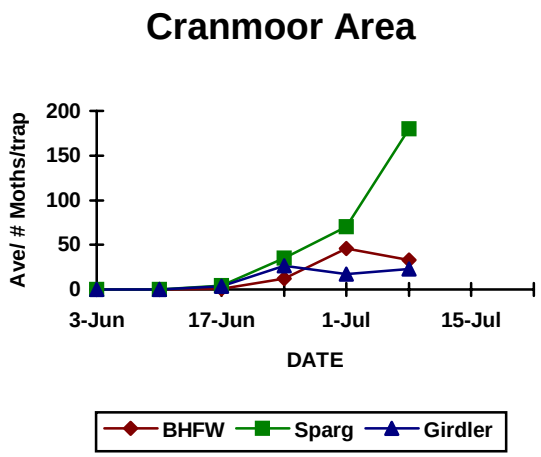
Warrens Area



Means from 13 growers



Means from 2 growers



Means from 10 growers

Wisconsin Cranberry Crop Management Newsletter
Dept. of Horticulture
1575 Linden Drive
Madison, WI 53706-1590

Nonprofit Org.
U.S. Postage
PAID
Madison, WI
Permit No. 658