Wisconsin Horticulture Update:
Friday May 14, 2004

County roll call - Barron, Brown, Dane, Eau Claire, Milwaukee, Outagamie, Portage, Price, Racine, Washburn, Waukesha, Winnebago

Phenology
South Central
Lilac FB
Red Bud Late bloom
Dandelion gone to seed
Dames rocket Early bloom
Flowering Crab FB
Bleeding Heart FB
Wood Violet FB
Korean spice Viburnium PB
Orioles are back

South East
Asparagus pest
1st mosquito bite
Lilac 1st Flower
Red Bud FB
Dandelion gone to seed
Bleeding heart FB
Horse chestnut FB
Frost damage Black Locust
Spirea X Vanhouttei
Fragrant early Crab FB
Viburnium carlesseii FB
Wild Plum FB
Strawberries FB
Creeping Charlie FB
Spruce galls are forming as well

Central
Dandelion FB
Bleeding Heart FB
Lilac First Bloom

East Central
Common lilac 1st to Early Bloom
Red Bud FB
Dandelion FB to gone to seed
Wild Plum FB
Flowering Crab Early to FB
Soil temp 4" open lawn 62F.
Soil temp 4" garden soil 68F.

West Central

Dandelion gone to seed
Pasque flowers FB
Lilac FB
Flowering Crab FB
Bleeding Heart Fb
Creeping Charlie FB
Trillium FB
Rhododendron FB
Epimidium Blooming
Tiarella Blooming
Bud break Oak leaf hydrangea

North West
Daffodils FB Dandelion First Flower
Still cool but soil is warming

Weather Report for May 2004
Location: Grafton, WI 53024 Latitude: N43 Degrees 18.238 Min. Longitude: W87 Degrees 56.862 Min.

Temperature				GDD at 43 Degrees			GDD at 50 Degrees			Rain Fall		
Day	High	Low	Ave	Day	Mnth	Yr	Day	Mnth	Yr	Day	Mnth	Yr
1	46.5	40.3	42.8	1.8	1.8	316.2			168.1			7.29
2	47.0	32.9	38.8	2.0	3.8	318.2			168.1			7.29
3	44.2	30.3	37.0	0.6	4.4	318.8			168.1			7.29
4	70.6	37.5	53.7	13.8	18.2	332.6	10.3	10.3	178.4	178.4		7.29
5	52.0	37.3	44.4	4.5	22.7	337.1	1.0	11.3	179.4	179.4		7.29
6	73.3	45.7	57.1	16.5	39.2	353.6	11.6	22.9	191.0			7.29
7	50.4	39.1	44.7	3.7	42.9	357.3	0.2	23.1	191.2	.37	.37	7.66
8	60.7	42.1	45.9	8.9	51.8	366.2	5.4	28.5	196.6	.96	1.33	8.62
9	63.4	45.2	50.4	11.3	63.1	377.5	6.7	35.2	203.3	0.04	1.37	8.66
10	78.1	48.5	60.1	20.3	83.4	397.8	14.0	49.2	217.3	.94	2.31	9.60
11	56.2	48.9	50.9	9.5	92.9	407.3	3.1	52.3	220.4	0.02	2.33	9.62

County Reports

Winnebago – I've had several people call in about herbicide drift and found out that farmers are not required to be reporting when they do the spraying. And people are resorting to taking pictures of what has happened if they live next to a farmer's field. Some tulips are not flowering this year. Also had calls about a new fungicide and malthion combination with azoxcystrobin, which is actually phototoxic to apples. I called Teryl on that and he confirmed that.

Outagamie – Plant development is actually kind of slow so far this year.
We're getting a fair amount of slime molds and also the birds nest fungi that are coming up in wood mulches. We've had quite a bit of moisture, so the molds are pretty active.

Racine – We've been getting a lot of turf questions, lots of bare spots in the lawn, things that look like they might have been kill molds that didn't get raked out. A lot of people reporting dead and dying trees and shrubs. We've had a lot of different species come through our office; spruce, Scott's pine, lilac, different shrubs. We've also had a lot of questions recently about lilacs that aren't blooming, which I think is interesting.

I've seen ash trees that aren't leafing-out properly. Is that due to drought? Does anybody know the relationship there?

I think part of it is due to drought, but in other cases there might be other stresses. Probably in some cases it's improper planting and it's just catching up with the trees. Also there may be girdling root issues involved. And in some ashes that I've seen when walking around the city, there's been sectional dieback, which I think is an indication of some verticillium wilt as well.

I also noticed on my drive this morning that Dame's Rocket http://www.uwex.edu/ces/wihort/gardenfacts/X1082.pdf is in full bloom. I don't think that was mentioned in the phenology. People often want to know where they can get the plants and seeds. We want to discourage that. Also people have been bringing in samples of garlic mustard http://www.uwex.edu/ces/wihort/gardenfacts/X1081.pdf for the first time in the county and are realizing what a pest it can be and wanting to do something about it.

Spooner – We did send in snow mold samples and both came back as snow mold. Our growing degree-days in Spooner are 186. I have a case that I need to get more details on it, but is there anything out there where with arbor vitae on the lower 1/3 of the tree has turned brown and lost all of its needles?

Milwaukee – I have a sample of numerous hostas http://www.msue.msu.edu/msue/imp/modzz/00000735.html that came in from one place and they all have little brown spots on them that go from small into larger brown spots with centers that fall out and a dark yellow around the spot. It's kind of all over the leaf, not just at the tip or base. We looked up on the internet and found Colletotrichum anthracnose.

That was one of the things I was thinking about. The other thing would be botrytis. We've had enough moisture that that could infect them. We oftentimes do see leaf spot on hostas from that particular organism. It does tend to be a whimpy pathogen. But colletotrichum would certainly be a possibility. What you can do is take some of those leaf spots and put them in a moist chamber for a couple of days and then stick them under the dissecting scope and look in those necrotic areas for little eye lashes popping up from the surface of the leaves and if you see that, it's colletrichum.

The treatment is basically is just to give it better air circulation in that area?

Yes, air circulation, you might have to live with it a little bit. They could use fungicides if they wanted to, but I think it is more of a nuisance problem than anything really serious.

If they were to use fungicides, copper containing fungicides?

Yes, they could use chlorothalonil, which would work well and is readily available.

General Horticulture – Bob Tomesh

We can't complain this week, because a week ago we were complaining that it was too cold and too dry and now we have plenty of moisture and some parts of the state are reporting 5-6 inches.

In fruits, I think the frost damage along with some of the snow that we had that two weekends ago has caused more damage than we previously thought, at least in some areas of southern Wisconsin. Some of the strawberry plantings had a fair amount of damage with flowers having black centers. Looking at some of the plums and pears that were in bloom at that time there is very poor fruit set. I think there was more damage than we earlier anticipated. We've said it has to get down to 25 and I did have a couple of areas reporting temps down to 23 and 24. On certain sensitive plants like catalpa and ginkgo, there not only leaf burn but also some terminal bud damage. The terminal bud just stopped growing due to the cold temperatures.

Vegetables, gardens are going in. I did see a field of sweet corn emerging two days ago.

In flowers, people are starting to take more and more cuttings of perennials, like chrysanthemums and some of the other things. They are utilizing that bulletin we have on home propagation techniques (Home Propagation Techniques: NCR274 Perennial plant sales by non-profit groups are coming into full swing. Keep that in mind when looking for plantings. Some late season dividing. Keep in mind that those plants that will blossom in June, if you are dividing them now, you may destroy a portion of that flower bud.

In turf, things are greening up well now with the rain we've had. We also have a very good stand of dandelions. You have to keep in mind what kind of happened last year. We had a drought and for those lawns that were not watered, the turf grass was not thick and smothering like it may have been. Thus the thinner turf has resulted in more broadleaf germination last year. I think some of the dieback we had reported, may be the result of lawns that went into the winter in fairly poor health due to a relatively dry fall.

In trees and shrubs, except for some of the frost damage, on these trees, things seem to be coming along. I did see a fair amount of the conifers and Christmas trees in some of the sandy areas that had a fair amount of tree loss. This was probably a result of the drought last year.

Questions:
None.

Plant Disease Clinic – Brian Huddelson

Conifers
- Pythium root rot (*Pythium* sp.) on red pine
- Phomopsis tip blight (*Phomopsis* sp.) on spruce
- Phomopsis canker (*Phomopsis*) on arborvitae and white pine

• Sphaeropsis tip blight (*Sphaeropsis sapinea*) on pine (including red)
• Cedar-quince rust (*Gymnosporangium clavipes*) on juniper
• Rhizosphaera needle cast (*Rhizosphaera kalkhoffii*) on spruce (including Norway)
• Spruce needle drop (*Setomelanomma holmii*) on spruce (including Colorado blue)
• Water stress on spruce and pine (including red and white)

Woody Ornamentals

• Powdery mildew (*Oidium* sp.) on ninebark

Herbaceous Ornamentals

• Tobacco mosaic virus (TMV) on *Datura* and marigold

Not a lot to report from the clinic. Same sorts of things I reported in the past few weeks. There are a lot of water stress issues, particularly on conifers. We're seeing spruce with phomopsis tip blight **http://ohioline.osu.edu/hyg-fact/3000/3056.html** which is a little unusual in that particular host, but I think it is a consequence of the trees being under a lot of water stress and it's just weaking the branch tissue to the point where phomopsis can get a hold. We've also been seeing some sphaeropsis tip blight on red pines in particular. It's always a problem on Austrian pine. A beautiful sample of cedar-quince rust came in on one of the low spreading junipers. The only way this person noticed them is because she was pruning them. As she pruned off branches, she found relatively small galls on the branches underneath the foliage. This particular member of the cedar apple rust group has rather indistinct galls. It's usually all you will see when the fungus is not fruiting. It's just kind of swelling in the branch. At this time of the year you start to see little blister like areas that are kind of a rusty orange color, quite distinct.

Other types of rust, I did have a beautiful sample of Eastern gall rust **http://www.msue.msu.edu/msue/imp/modzz/00001698.html** , which is a rust that occurs on Jack pine. It causes a roundish sort of gall on branches or even on the main trunk on occasion. It was producing aeciospores like crazy. It was just sporualting all over the place. They sent it to me in a cardboard tube and there was a puff of yellowish powder and as soon as I saw the host, I knew what it was.

Other things I've seen, the first powdery mildew **http://www.uwex.edu/ces/wihort/gardenfacts/X1005.pdf** of the year. And I'm just amazed because it is very early for that particular disease, although with the weather we've been having, relatively warm and very humid, it's been perfect weather for that to develop. It showed up on its best woody host, ninebark. That's about the only woody host that I know where you actually get debilitating powdery mildew. It was over at the Allen Centennial Garden and I told Bill Hoyt just to rip the plant out and replace it. That particular host gets powdery mildew really badly.

The other thing I wanted to talk about is that I got a newsletter from Aphis on sudden oak death. They've been doing a lot of testing after they found out that phytophthora remorem was at the Marovium Nursery in California which sends out a lot of plants. Just to let you know at this point, they have found 118 confirmed positive recoveries of phytophthora remorem in 14 states. The genie is out of the bottle. We have not had any positive confirmations here in Wisconsin.

Just looking over the list, the closest place to us, it's pretty much all southern US, the closest place is Tennessee. That's another disease we're going to have to continue to worry about.

Questions:

I have a question on white pine. It was turning yellow, in the sense that it was chlorotic. That was just the first time this year, after 25 years. She has 2 black walnuts nearby, about 25 feet from the tree, but I looked it up and it said that white pine can tolerate it; at least that's what the literature says. It's got to be an underground problem; she doesn't have any trunk or any other kinds of problems. Can you figure out?

It could be a litany of things. One thing you should have her do is check soil pH because it could be a chlorosis problem. I'm inclined to thing that it is also drought related as well because we're seeing a lot of conifers that are showing a variety of types of discolorations and it seems to be caused primarily by a lack of water. Get her into a regular watering regime. Check the soil pH to make sure that's at the proper level. She might want to do a soil nutrient test to see if she wants to fertilize at all. Other things to look at would be if there is grass growing up to the trunk of the tree. If so, she should probably remove that out to about the drip line and replace it with some bark mulch and keep it nice and moist.

She lets the needles just fall down so it is pretty well mulched. The thing I thought was unusual was that it never was yellow before this year and all of the sudden it is yellow.

It doesn't surprise me. We're seeing symptoms show up very quickly and I just think it is a cumulative issue of stresses over the past 2-3 years.

Maybe she should get a pH test first?

The first thing I would say is to monitor water and if we're not getting rain, make sure she's out there watering the tree.

Of course the water in some of these locations is very alkaline, so what I'm trying to do is have people put out rain barrels so they can at least get some decent water.

Unfortunately if we're not having any rain, you have to do supplemental watering, that won't help much. Anything she can do to get more water to the tree, I think she's more likely to mobilize any nutrients that are in the soil to the root system. Now there could be some root rot issues as well, that could be contributing to that as well. If there are low grade root rots, we'll start to see those nutrient deficiency symptoms in the trees. That's something else to keep in mind if other things you do don't eventually alleviate the problem.

I'm going out on a hort visit to see some spruce trees that appear to be showing the symptoms that you were describing regarding gall rust. Any recommended treatment if that's what it appears to be?

It depends on what kind of gall rust it is. The one I talked about is Eastern gall rust, which is the only one that's really been reported in the state. That one alternates between pines, particularly Jack pine and oak trees. So you don't really have an option of eliminating the hosts, because both of those trees can have ornamental value. From an aesthetic point of view, the only thing you can do is prune out those galls. The other type of gall rust is Western gall rust. That particular disease is an autocious rust in the sense that it only infects a single host. In this case, primarily Jack pine. To tell the difference between the two, it's one of those things you need to send in to the lab because we have to germinate spores so that we can tell which one is which. We basically germinate them for 24 hours and then measure the germ tubes as they come out.

Was that on spruce or on Jack pine?

This would be on Jack pine. If it is something going on on spruce, then it isn't this particular disease.

This family reported it as being spruce trees, but I haven't been out there yet to see.

Vegetables – Karen Delahaut

In the southern part of the state most fresh market vegetable growers have their cole crops and onions/leeks transplanted into the field with a second planting of cole crops waiting in cold frames to go out later.

Many growers have leafy greens and spinach under row covers to get an earlier harvest as well as avoid some early season insect problems.

The first plantings of sweet corn made on lighter soils the second week of April are up about 4 inches.

Garlic is at the 6-8 leaf stage.

Some growers have their warm-season peppers, tomatoes, and eggplant hardening off in cold frames but unless they have them planted in Zip houses, these tender crops won't be going out for a few weeks in the southern part of the state.

Many of the state's farmers markets have already opened for the season with the primary commodities for sale being bedding plants, meats, honey, maple syrup, and baked goods. Vegetables for sale include asparagus, early rhubarb, spinach that's regrowing from crops planted last fall and in Madison, delicious greenhouse tomatoes (at $3/pound). And the gatherers have come to market with ramps (*Allium tricoccum*) and morels for the gourmet population out there.

The warm weather and degree day accumulations bring on the spring vegetable insects. This week it's primarily the beetles: asparagus, striped cucumber, and flea beetles. Striped cucumber beetles were at a level of 2/plant on some organic, hoop house-grown cucurbits. Flea beetles on cole crops are reported to be worse this year than in the recent past. The best method for management is

exclusion with floating row covers. Make sure the row covers go on as soon as the crop is planted or emerges and that all edges are firmly secured.

I've seen the imported cabbageworm butterflies flitting about so cole crop transplants should also be monitored and sprayed as needed or covered with row covers as described above for flea beetles.

There was a question in last week's transcript about phenological indicators for cabbage maggots. They're monitored with a base temperature of 43 degrees and the first generation of flies comes out when $300DD_{43}$ has accumulated. This coincides with early to full bloom of the common lilac. This means they're out in southern Wisconsin and growers should avoid transplanting their cole crops for another week. If seeding directly, growers may do so but in areas where the cabbage maggots haven't yet emerged (northern regions) growers should avoid direct seeding cole crops for 1 week before emergence is predicted or seeding 3 weeks before emergence is predicted.

If you're interested in finding out degree day accumulations for weird base temperatures like 41, 43, 48, etc. go to the soils website at http://www.soils.wisc.edu/wimnext/asos/SelectDailyGridDD.html and plug in your latitude and longitude and follow the instructions given.

There are two other "maggots" that cause problems in vegetables at this time of year. The onion maggot and the seed corn maggot – the latter affecting corn, beans, and cucurbits.

At 375 DD_{50}, the European corn borer moths will have completed pupation and moths will begin appearing in blacklight traps. We've reached this stage in the southern part of the state but at this point, there's not much sweet corn at a stage where damage will be severe.

Other vegetable updates/projects.
I've begun compiling a vegetable variety database into which I can include an extensive listing of all vegetable varieties available for sale, their characteristics, disease resistance, performance in Wisconsin variety trials, and sources. As I talk with fresh market growers, I will also note in the database which are commonly grown and any comments the growers may have.

With any luck if it ever stops raining down here, Judy Reith-Rozelle, myself, and three master gardener volunteers will be planting an Asian vegetable demonstration trial at West Madison on Monday. The trial will include 7 greens, 7 cucurbits, 1 tomato, 2 eggplants, 12 brassicas, 6 legumes including yardlong beans and edamame, 4 radishes, Chinese corn and a couple of Asian herbs. We will be having a taste testing at the Horticulture Field Day on August 21 so come down to see some of these less common vegetables and taste them.

Another project I'm working on is a garlic variety trial which is also at West Madison. Last October a group of Master Gardener volunteers helped Judy and I plant 9 hardneck and softneck garlic cultivars as well as elephant garlic (so we can educate the general public that it's not a garlic but rather a leek). These will all be taste tested at the field day as well.

Finally, I'm hoping to conduct a pepper variety trial at Ashland, Spooner, Marshfield, Hancock, West Madison, Penninusular, Green Bay Botanical Gardens, and Rock County Jail but we're having some greenhouse problems and the seedlings aren't looking so hot.

Last winter several workshops/seminars were held. One included farmer's market managers. This program was very well-received, so much so that we'll be doing it again in winter 2005 in the Eau Claire area. Kerry Ingraham and Jon Behling have agreed to assist in this project. As soon as we get a date, I'll let you know.

Another successful series was with the Amish and Mennonites that market their produce at the state's three produce auctions. This too will be repeated in the winter of 2005. This time, we're thinking about focusing on greenhouse production since many of them are starting this and Brian and I saw lots of problems and room for education in the future.

The last audience I've been focusing on are the Hmong. They have been increasing in numbers at farmers markets and there have been some issues with produce quality, pricing, WIC sales, and ethnic discrimination. I've been working with various groups to try and educate this group but their growing practices are so different than those of market growers that are doing this as their primary source of income that it's difficult.

If you haven't been to my new website please visit: it's at http://www.hort.wisc.edu/FreshVeg and contains some useful resources and information.

Questions:

This isn't a pest problem but I have a number of questions from people about rhubarb in regards to a variation in the types of rhubarb and when they go to seed. I have some rhubarb at home that doesn't go to seed at all and there are others who have some that goes to seed right away. It causes a lot of problems in growing rhubarb. Are there any rhubarb trials that have been done in Wisconsin that would give us the most highly recommended cultivars of rhubarb?

As far as I know, there have never been any rhubarb trials. It just isn't one of the likely types of things to do trials on. I'm wondering if this would be a thing that we could poll or survey Master Gardeners or others around the state. Find out what varieties they are growing and whether they go to seed and how quickly they go to seed and put this together.

Or perhaps with commercial growers, they are probably even more concerned with that than anyone would be. If they have specific varieties that their customers really like. I know with ours, a lot of it depends on how red they are, but a lot of these red varieties, the stalks are small and they just aren't very good. Otherwise, we could just do a trial.

That might be something to think about for next year. I know I put in a Kohl grant to do some variety trials. I didn't include a rhubarb, but we always can.

I've found from homeowner questions is that they seed out sooner than other years. I wasn't sure about the environmental factors there.

I'm sure that that is going to play a role as well, if the plants are stressed because stressed plants will try to put out seed quicker because they want to survive.

I have a question about the new publications on growing salad greens in Wisconsin. One of the things I didn't understand was that for preventing high nitrate levels, there were the three suggestions to minimize it. Two made sense, use minimal nitrogen fertilizers, split the applications. The other one was side-dress the fertilizer instead of broadcasting it. I didn't understand why that would make a difference?

If you are side dressing, you are going to put it right next to the plant and you will put less on than if you broadcast it throughout the entire planting. It's interesting, I got an email from someone that said the American Academy of Pediatrics, or whatever it is called, was recommending in their children's handbook, that they do not feed children homegrown and homemade beets and spinach and those kinds of things. That's contraindicated by what the Family Living agents are saying because they are trying to get these low income families to grow their own food. The concern is that they can accumulate high nitrate levels which in turn convert to nitrite which causes blue babies. We did a little investigating and there are very few cases that have been reported in Wisconsin, part of which just might be the physicians aren't diagnosing it as such. But the concern is that they shouldn't be storing these processed vegetables. If they are going to be making pureed spinach, feed it to the child as soon as possible because it is over time that the nitrates will convert to nitrites and cause problems. This isn't a problem with the canned stuff that you purchase because they do all the testing. It's just that it's the homemade. We've been still encouraging people to grow their own baby food, but not use things like lawn fertilizer to fertilize it.

How long to do you keep those row covers on for cole crops?

With the cole crops, you can actually keep them on until you are ready to harvest because all of those cole crops, you aren't heating anything that needs to be pollinated. With the flea beetles, that will devastate them, plus the three worms, you should just keep them covered the entire time.

They will get enough sunlight through them?

Yes, there are different weights of row covers. There is the thicker stuff you use more for frost protection and season extension. There's a very thin row cover you can use all summer long that gets plenty of light, water and air circulation.

I think a lot of those are rated 85% light transmission. Apparently the plants don't need that much light.

On the farmer market stuff, where is insurance coming out with some of these markets?

What do you mean?

How big of an issue is it and are they required to get supplemental insurance or are their homeowners and supplemental insurances good enough for some of these sites?

I think their farm insurance will cover it. The market itself needs to be insured but then at some markets the individual vendors need to have insurance. Liability insurance incase someone trips over their stand and insurance incase someone gets food poisoning from what they eat. So whether their insurance policy covers those kinds of things at a remote site, that's what's going to make the difference.

It just seems to me that this is one of the larger hurdles to establishing farmers markets in these smaller communities if liability gets to be too big of an issue, then people say they won't participate. I'm just wondering if there is a group policy that folks know about that the market managers are using to deal with this?

Bob is telling me that Rural Insurance will do that. Didn't someone at that market manager thing say that if you have the farmers market on city owned property, the city's liability insurance will cover it?

It was said that who ever is holding it have liability insurance because, and they wanted all employees to be bonded at the farmers market, because it was a dangerous situation.

If there is some general information or fact sheet or some guidance you could provide, it would be helpful.

I'll see what I can find out and post it on my website so everyone has access to it.

Are your workshops posted on your website as well?

Yes, all of the upcoming field days around the state are listed, the winter workshops, which I haven't set dates for yet are listed too.

Announcements:
For those counties who have Master Gardeners working in the office during the summer, Phil, Brian and Bob will do new agent training on June 3rd in Dane County and June 7th in Marathon County. Send Bob and email with a list of names to know roughly how many people to expect as far as handouts go.
When: Thursday, June 3, 2004
Time: 10:30 am – 4:00 pm
Where: Dane County Extension Office
1 Fen Oak Count, Madison, WI
Ph. 608-224-3700
OR
When: Monday, June 7, 2004
Time: 10:30 am – 4:00 pm
Where: Marathon County Extension Office
212 River Drive, Suite 1 and 2
Wausau, WI
Ph. 715-261-1230

Contact Robert Tomesh with questions and program reservations: 608-265-4536 or rjtomesh@facstaff.wisc.edu .

The Wisconsin Arborist Association meeting will be Tuesday, October 19th at the Country Inn in Waukesha. The WAA winter conference is in Green Bay starting Sunday January 30, through Tuesday, February 1st. The summer WAA field day will be Thursday, July 15th at the Janesville Rotary Gardens.
The SEW Master Gardeners are having their plant sale next weekend at the State Fair Park from 8-1:30 in the DNR area at the south end of the park.

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For suggestions or responses, please refer them to:
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