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**Colors in your Vegetable Fields – Bob Precheur**

Do your vegetable crops look like the color decision chart at your local paint store? Are you seeing white, brown, yellow and even purple on many different vegetables. Not to worry, because shortly everything will be a nice green color with the arrival of 80 degree temperatures. With the prolonged period of very cold weather and night temperatures in the 40s, 30s and near frost in some locations, many vegetable crops are showing classic symptoms of cold and chilling injury. Below is quick rundown of typical symptoms for major vegetables.

Sweet Corn: Newly emerged sweet corn plantings over the past few weeks look very yellow and brown. Larger plants may even have a purple color (see picture below). Most of this is do to the very cold temperatures. Injury can also occur when chilly dewy nights are followed by clear, sunny mornings. Irregular, light grey or silver blotches appear on both surfaces of the leaves. Strong winds, which we have had over the past 2-3 weeks, also cause damage. Leaf tips

turn white and then brown. Driving winds may carry sand and sandblast young seedling leaves. Purpling of the leaves can also occur as well as leaf shredding.



Tomatoes: Recently transplanted tomatoes, over the past three weeks, will be yellow and olive green in color. The underside of the leaves and or leaf veins will be purple (see picture below). This is an indication of phosphorus deficiency because of the plants inability to take up this mineral at low soil temperatures. You should have used a starter fertilizer (one high in phosphorus) at the time of transplanting of tomatoes or peppers. If you already used starter fertilizer at planting, DO NOT put on any additional starter solution now since the increase in salts will burn the root system.



The Cucurbits or Vine Crops: Low Temperature Injury is very common and a problem with all cucurbits. Typical symptoms is white color or whitening of cotyledons or younger leaves, Seen at 50F and below, muskmelons and cucumbers seem to be the most sensitive and in the case of muskmelons, prolonged periods of below 50 degrees will cause plants to go backwards. You will need to evaluate these fields since reseeding or setting new transplants may be necessary to achieve the proper plant stand.

Typical examples of low temperature injury in vine crops are shown below.

**A**



**B**



**73. A,** Low-temperature injury in cucumber seedlings. **B,** Responses of five cucurbit species to chilling. (A, courtesy T. A. Zitter; B, courtesy T. H. Wehner)



**FROST INJURY**



## Crop Reports from Brad Bergefurd

SW Ohio growers just started getting back in the fields on Tuesday of this week after 10 straight days of rain, with some areas reporting anywhere from 2 to 6 inches of rainfall, and pea sized hail for the period. In the SE and South Central growing areas less than 1 inch of rain fell all last week, one grower in Wheelersburg Ohio reported soils too dry to lay plastic mulch and that sweet corn planted 2 weeks ago is still lying in the ground unsprouted. The OSU South Centers Research Farm at Piketon (Pike County) is irrigating newly planted vegetable crops and berries weekly due to the very dry drought like conditions being experienced. Planting of sweet corn, beans, summer squash, peppers, tomatoes, cabbage etc. continues. Sidedressing of all crops with Nitrogen is being done especially in areas that are planted on sandy soils and that

experienced 4 to 6 inches of rain last week. 80 acres of a new crop to the area, pickling cucumbers were planted 2 weeks ago in Ross county and are showing first true leaves. These will be machine harvested pickling cucumbers for a pickle company based in North Carolina. The first cucumber beetles were spotted in this field on Tuesday, otherwise the stand is excellent and emergence and plant stand is good. Last week some growers took action and applied preventative sprays of fungicide on melon plants for Downey Mildew control. There WAS NOT a diagnosis of Downey Mildew, like some industry rumors had it, just the grower taking preventative action since last weeks weather, cool and wet, were perfect conditions for the disease. Harvest of slicing cucumbers in high tunnels continues and the first harvest of mature green tomatoes in high tunnels is taking place. A grower has reported Septoria disease in one of his high tunnel tomatoes houses. With the increase in heat units this week, plasticulture strawberry harvest and ripening has increased, looks like one of the best plasticulture strawberry crops since the OSU South Centers began researching this production technique back in 2001. Matted row strawberry growers should begin a strong harvest harvest next week. With all the moisture received especially in the SW growing areas Botrytis disease is showing up and Leather Rot disease is being reported.