Irrigation Uniformity Testing Workshop

June 28, 2005   9:30 AM to 3:30 PM (lunch included)
Location: UW Hancock Ag Research Station, Hancock, WI

Objective:
1) Learn the importance and how to perform an irrigation uniformity test.
2) Learn the basics of irrigation scheduling.
   • Check Book Method
   • Soil moisture measurements

Who should attend: Growers, Irrigation managers, crop consultants

The purpose of uniformity testing of an irrigation system is to determine if the water is being applied to the soil surface uniformly. If water is not being applied uniformly, it can lead to water stress or disease of crops resulting in lower production. If you expect the top yields, then the irrigation system must be maintained for top performance; it needs to be checked at regular service intervals to make sure it’s performing properly. On many irrigation systems, the switch is turned on and we walk or drive away if some water is emitted from the nozzles and assume that it is working. It’s likely that you’ll know if the performance of your truck or tractor is decreasing sooner than if something is wrong with your irrigation system, unless it is tested on a periodically.

The workshop will focus on how to perform uniformity testing of center pivot, linear-move or traveling gun irrigation systems and cover the following topics:

- Equipment requirements for uniformity testing.
- Determining the proper collection can spacing and layout.
- Data recording needs.
- Calculation of average depths, depth deviation and coefficient of uniformity.
- Analysis of results.
- Importance of pump/well testing.
- Wisconsin Focus on Energy programs for irrigation systems.
- Basics on Irrigation Scheduling
- Soil moisture monitoring equipment

Students will perform a uniformity test on a center pivot system or a linear-move system (boots or water resistant shoes are suggested). This workshop is intended to instruct growers on how to use the Uniformity Test Kit that is available for growers to borrow at no charge to test their own irrigation systems.

Cost: Free – Sponsored by Wisconsin Focus on Energy

Call Scott Sanford at 608-262-5062 or e-mail sasanford@wisc.edu with any question.

Pre-Registration by Thursday, June 23 is required. Limited to 20 participants.

Registration: Irrigation Uniformity Workshop
Pre-Registration by Thursday, June 23 is required.

Name:__________________________________________

Farm/Company Name:__________________________________________

Address: ____________________________________________

City, State, Zip code: ________________________________________

Phone Numbers: ____________________________ Cell: ____________________________

E-mail: ______________________________________

Tuesday, June 28, 2005 9:30 AM - 3:30 PM UW Hancock Ag Research Station, Hancock, WI

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460 Henry Mall
Madison, WI 53706

Fax to: 608-262-1228

E-mail to: sasanford@wisc.edu

Potato Crop Update
Alvin J. Bussan, Potato and Vegetable Crop Specialist, UW-Madison, Department of Horticulture, 608-262-3519, 608-225-6842, or ajbussan@wisc.edu

Rain and more mild temperatures were the norm several days this past week. However the cool temperatures are projected to be short lived and spotty precipitation suggests
irrigation may already be necessary in some areas of the sands. With the hot and dry weather predicted for this weekend and early next week you need to consider starting your irrigation systems up sooner rather than later.

The potato crop is growing very rapidly. Full canopy closure has already been reached in many fields in the southern part of the Central Sands. Based on canopy development data, full canopy was reached at least 2 full weeks earlier than in any of the last three years. The warm temperatures the first 10 or so days of May really helped the crop move along fast.

With the crop reaching full canopy, no hilling should be done from here on out to prevent or minimize any root pruning. We actually applied supplemental N to prescribed fertility treatments at the Hancock Agricultural Research Station. I recommend you begin petiole sampling with the rapid crop canopy growth that has occurred and evaluating the current N status of the crop. Some regions of the state received in excess of 3” of rain over a 72 hr period of time and petiole sampling should be used to guide future N decisions.

Tubers have set on nearly all the potato crop with the size ranging from ¼ to 1” in diameter. We applied our first application of 2,4-D to red potatoes in the sands with the tubers set and early blossom to bud stage reached on the vines. The crop is off to a fine start this season so here’s to continued good growing conditions.

Vegetable Disease Update - W. R. Stevenson, Department of Plant Pathology, UW-Madison, Tel. No. 608-262-6291, Email: wrs@plantpath.wisc.edu

Potatoes – It’s been another ideal week for plant growth and development. The crop is looking great in most fields and it appears that we are off to a good start. Scattered rainfall accompanied with cooler temperatures and long periods of relative humidity are just the conditions that favor plant disease. Severity values increased over the past week in Wisconsin and in other portions of the Midwest. Still, however, there is no late blight being reported anywhere in the Midwestern states. With severity values on the increase in Wisconsin and some of the earliest plantings approaching 300 P-Days and beginning to touch between the rows, it’s time to begin fungicide sprays in these fields. At this point, I don’t see a need in the first sprays to go beyond treating with broad spectrum protectants such as mancozeb, metiram, chlorothalonil or a fixed copper. The crop is growing very rapidly at this stage and it’s important to get fungicide coverage on the lower leaves where the first early blight infections generally occur.

Field Survey For Hosts of The Pink Rot Pathogen

To identify potential alternative hosts of *P. erythroseptica*; the cause of pink rot on potato; we are conducting a field survey in Wisconsin. We are interested in identifying five fields that are growing each of the following crops, but which will be planted to potato next year (critical point): wheat, barley, rye, sweet corn, field corn, soybean, onion, sugar beet, snap bean, pea, Sudan grass and alfalfa. Also, we are looking for five
fields that are grown to potato this year and will have one of the crops listed above planted in 2006.

Fields with a history of severe pink rot, or certain parts of fields consistently more prone to the disease are a plus. Weeds will also be collected from the potato fields to test for their susceptibility to the disease and their potential impact on pathogen survival. A total of 20 plants will be collected from each of the fields. This two-year study is conducted as a cooperation between the programs of Walter R. Stevenson at UW-Madison and Jeff S. Miller at the University of Idaho. Similar collections will be completed in Idaho.

Your collaboration is appreciated and the anonymity of your farm will be secured. The data will be made available during the 2006 Wisconsin Potato Growers Winter Educational Meetings. This study is aimed at preserving the efficacy of the fungicide Ridomil and the identification of potential alternative hosts that predispose potatoes to pink rot.

Please let us know if you have fields meeting the criteria listed above. You can call Zahi at 608-262-3269 or Walt Stevenson at 608-262-6291.

**Soybean Rust** – Another county in Florida was added to the list of counties where soybean rust is present on kudzu. There are now five counties in Florida where rust is present. We should know in another week whether Tropical Storm Arlene moved the pathogen to additional sites in the southeastern U.S.

**Tomatoes** – Symptoms of bacterial spot are beginning to appear on transplanted tomatoes in home gardens. Black greasy spots and watersoaked areas of leaves where lesions have coalesced are typical symptoms of this disease. Removal of infected leaves will help to reduce inoculum available for spread although this is not practical for areas larger than a home garden. The application of fixed copper sprays may help to reduce spread. Avoid overhead irrigation, if possible. We normally see the first symptoms of Septoria leaf blight (small [1/8” diameter] tan spots with dark brown borders) starting on the lower leaves at this stage of the growing season. Mulching, removal of the lowest leaves showing symptoms and treatment with fungicides such as chlorothalonil or one of the strobilurins helps to effectively manage this disease.

**Current P-Day and Severity Value Accumulations for 2005**

(https://www.plantpath.wisc.edu/wivegdis/index.htm)

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