POTATO SHORT COURSE

"Strategies for control of disease and quality"

Sponsored by Empire State Potato Growers, Inc.

February 19, 2014

Ballroom West, Holiday Inn, Liverpool, NY

9:30 AM – Sign-In, DEC registration and coffee –

10:00 AM – Introduction - Don Halseth, Dept. of Horticulture, Cornell University -
This "Potato Short Course" is intended to provide more in-depth education for potato growers and associated industry personnel in selected topics of major importance to potato production and utilization. This February we will provide a comprehensive overview on potato diseases, plant breeding and variety development. Information on how to best identify and control major diseases that can have significant impact on the crop will be provided. Biology of the pest organisms will be discussed to help growers understand what conditions and cultural practices are more conducive for its development or control. Potato genetics, state of the art breeding procedures, variety development, and related topics such as the future of GMO's (genetically modified organisms) will be discussed.

10:10 AM – Managing potato diseases – Amanda Gevens, Dept. of Plant Pathology, University of Wisconsin -
Will discuss important diseases (such as early blight, late blight, Rhizoctonia, silver scurf, black dot, Pythium leak, pink rot) and why they keep coming back! How to identify them and what are the best control measures. Development of resistance to fungicides is a critical issue – best to rotate with materials with different modes of action. Comparisons of seed-applied vs in-furrow fungicide applications. Experience in Wisconsin with post-harvest fungicides such as Phostrol and Oxidate. Cultural practices to reduce bruising, good storage sanitation, appropriate storage temperature and humidity, seed piece treatments, and managing tuber health all contribute to significantly improved quality and storage life.

Lunch: Noon to 1:00 PM

1:00 PM – Potato genetics, breeding, and variety development – Walter De Jong, Dept. of Plant Breeding, Cornell University - Potatoes have a very complex genetic composition which requires specific and often unique breeding strategies. The advent of molecular technologies has provided new genetic information and breeding tools as illustrated by the Sol-Cap project. The use of national, regional and local trials for variety development and sharing of information with growers, industry and researchers will be covered. Goals and priorities for NYS breeding include more stable yield, better utilization characteristics, and resistance to diseases, insects and nematodes. The future for potato variety development will be discussed including the new area of licensing which could help with funding and more efforts in variety adoption.

1:45 PM – New technology for developing improved processing quality and other traits – J.R. Simplot Co. - has developed a biotech approach to modify potato genetics to produce potato varieties which have greatly reduced black spot bruising, lower acrylamides and lower reducing sugars. They currently have five "Innate" potato varieties where they have "silenced" unwanted attributes while retaining 100% of the potato's genome. Future projects are improved storage, late blight and Potato Virus Y resistance, and increased levels of vitamins and nutrients.

2:30 PM – Break

2:50 PM – Decision Support System (DSS) – Late blight forecasts specific to your farm and crops – Carol MacNeil, Cornell Cooperative Extension and Ian Small, Dept. of Plant Pathology, Cornell University – Learn how to use the DSS in this live, online session. See how to: choose from locations; choose varieties/LB susceptibility; set date of 1st cull/volunteer emergence; and choose fungicides. See reports of recent and forecast blight units and fungicide loss. Sign up for Alerts to reports and fungicide need, and practice using the DSS by smartphone. Set up your farm/field account with our assistance (bring a laptop or request a loaner). Email Carol MacNeil at crm6@cornell.edu for a password a week before the meeting.

4:15 PM - Adjourn

DEC Pesticide Recertification: credits have been applied for categories 1a, 10 and 23

No registration fee – sponsored by the Empire State Growers, Inc. Lunch will be ordered off menu and paid by attendees. Preregister with **Don Halseth (607-255-5460 or deh3@cornell.edu) by Feb 14.**