Semiannual Lettuce Advisory Committee Meeting

Belle Glade, FL
February 7, 2007

(Notes by Chris Miller)
Next Meeting: 10/3/07

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1. Everglades Research & Education Center Faculty Reports
    - Alan Wright: Soil Science
        - a. Working on P retention in the soil (summary provided)
        - b. Calcification of soil typically increases as P retention increases
    - Ken Pernezny: Plant Pathology
        - a. Working on plant essential oils and their effectiveness on bacterial disease control
        - b. Lab diagnostic tests are good on lettuce and pepper bacterial disease strains
    - Rick Raid: Plant Pathology
        - a. Current Diseases in the Everglades Ag Area (EAA)
            - i. Downy mildew has not yet been detected in the EAA
            - ii. Powdery mildew has been detected on dill, radicchio, parsley and beans
            - iii. Rust has been low on corn and beans but will likely increase in Spring
            - iv. Rhizoctonia has been very common with warm weather resulting in web blight in spring mix, spinach and beans
                Fungicide trials are under way
            - v. Sclerotinia has also been observed on several crops including lettuce and beans
            - vi. Stemphyllium leaf spot on spinach has been observed and is believed to be seed born
            - vii. Parsley Root Rot that has long thought to be caused by Fusarium may not be the case. Wade Elmer, a Fusarium expert, has evaluated several samples from Dr. Raid and has been unable to complete Koch's Postulates. He believes a different pathogen is likely responsible for the yellowing and wilting. More on this in next report.
            - viii. Early blight on celery has been reported
            - ix. Bacterial leaf spot on escarole and endive has also been seen
    - Gregg Nuessley: Entomology
        - a. Trailing larvicides and aphidcides and surfactants
        - b. Systemic aphidcide from Bayer thought to be available soon
2. Christine Waddill, EREC Director, Announcement
    - a. Discussed the development of an Endowment to honor four UF Faculty for their contributions to EAA grown crops. The honorees include Emil Wolf, Joseph Orsenigo, Victor Guzman, & George Synder.
    - b. A pamphlet was provided describing this great effort

3. Emil Bethel, grad student, discussed his thesis research: Host Plant Resistance in Romaine. He is being advised by Gregg Nuessley (ENY), Russell Nagata (Plant Science)
    a. Lettuce has been the fastest growing vegetable commodity over the last 15yr
    b. Latex of certain varieties of romaine have resulted in slower feeding therefore less damage, less body weight, lower survival rates and fewer eggs laid when fed upon by beet army worms
    c. Components of the latex are now being isolated and tested to determine which specific chemical(s) are responsible
    d. Once the specific chemical is identified, other lettuce varieties can be tested for their presence and concentration
    e. Then breeding and selection for those chemicals can be enhanced for more resistant commercial varieties
4. Linda Lindinberg, East Coast Sales Representative from Dow: Fungicide Resistance Management
    a. Global issue due to
        i. Farm consolidation
        ii. Loss of older products
        iii. Globalization of ag
        iv. Transgenic crops
    b. In any given population, 5% may be resistant
    c. Mode of Action (MOA) is related to the chemical structure of the fungicide
    d. Mechanism of Resistance (MOR) is related to the active sites
        i. Fungicides that work on the same site may lead to cross resistance
        ii. Better to use a fungicide that is active at multiple sites or tank mixing two or more products that work on different sites
    e. Suggested strategies
        i. Do not rely on one application; use multiple but refer to label
        ii. Alternate chemicals/active sites
        iii. Change up regular chemical mix
        iv. Change up spray program
        v. Use new chemistry/products
        vi. Utilize good cultural practices
        vii. Communicate
    f. New Products from Dow
        i. Qunitec: powdery mildew prevention (lettuce)
        ii. Nova 40W: powdery mildew preventative and curative (tomato)
        iii. Intrepid 2F: IGR stops feeding of even large worms (peppers)