CCA Workshop December 7, 2002
Setting priorities for Teaching, Research and Extension in NYS

Composition of Group
Extension: 8
Ag Industry: 20
Government: 23
Cornell: 9
Farmers: 2
What are your current sources of information?

• Publications
  - Cornell Guidelines   NE Dairy Business
  - NRAES               NRCS Standards
  - The Furrow (JD Pub)  Country Folks
  - Rural Futures

• Websites
  - Spear                Out of State
  - NRCS, SWCD

• Extension
  - Cornell             PSU, Ohio, Indiana, Michigan

• Individuals

• Training sessions & materials
  - Cornell               NRCS

• List Serves - need lists of all agencies also…integrate them
What information do you need that you are not getting?

- **More definitive information** - need better guidelines to form prof. judgment.

- **Value of CNMP to the farm** - Farmers don’t see the value. What are economics? Why should a producer do it? Non-economic benefits?

- **Effectiveness of BMP** - Are BMP effective?
Research Priorities

• **Health issues** - Nitrates and pathogens (Groundwater working group; SWAP assessment; EPA groundwater assessment---in 2004?; BEE is working on a targeting hot spots for groundwater pesticide contamination)
  - Copper and other heavy metal loading
  - Sludge – Nutrient accounting for sludge
  - Air quality –Economic solutions to odors
  - N-mineralization
    - Uptake of N with fall planted cover crops
    - N needs on 1st year corn
    - N Leaching
  - P and P Index work should continue; also P management
    - Impact of high P on environment
    - Impact of high P on pastures
    - Soil Specific P saturation levels
    - Stratification of P in soils – effect of tillage and environmental consequence

• **Economics** of NMP.

• **High yielding crops.** What are fertility & cultural practices, environmental impact ?

• **Manure**
  - Methane digestion
  - Composting. Composting dead animals.
  - Nutrient availability –Fall apps etc.
  - Nutrient value
  - Environment (?)
  - Pathogen work on hayground / biosecurity
  - Labor requirements
  - Neighbor relations
  - Marketing
  - Concentrated Source treatment new technology

• **BMP Validation.**
  - Buffer strips
  - Silage leachate etc (Miner Inst. and BEE evaluationl of silage leachate filter area performance)
    - Effectiveness of Buffers.
    - Cover crop effectiveness

• **Crop Rotations** for meeting T

• Nutrient loss from pastures

• Maintain accurate soil test conversions

• Nutrient loss from tile drainage

• Re-visit earlier crop response studies on nutrients to validate the nutrient recommendations.

• Validate yield potentials and what the risks may be by pushing them.

• More work on minimum tillage and how it fits into dairy (CAFO)

Extension Priorities

• **Quick communication** of new information across agencies to all stakeholders
• **Dissemination of non-CU research** - Perhaps have the CCA conference bring in more external speakers. Combine with PSU?

• **Record keeping** - Database/Record keeping system for whole farm including feeding and forage systems

• **Engineering** - CU should disseminate basic engineering education

• **Education related to controversial issues** (GMO)

• **Integration of information** – There is a need for more well-rounded information, less strict division by subject area

• **Tailor** delivery to large and small farms

• **Emphasis on crop quality**

• **Strengthen locally-based research and education**

• **Educational materials** for farmer friendly plans
  - CAFO Plans need to be better defined. Different review teams have different interpretations. Laundry list not enough – need a template or example plan. Plans are taking too long to develop because of the uncertainty in requirements.
  - We need help in how to organize and present plans to farmers; they are overloaded with documents.
  - Need two sets of plans: planner level (how to) and farmer level (value and how to incorporate into management plan). Problem: farmers want to know what to do: how much, when and where. Plans don’t really say this in a straightforward way and there is too much “supporting” info that clouds the issue.

• **Professional judgment** - how do you develop and use? Need guidelines for using it; many lack the confidence in using it – legal issues, etc; not much of a comfort level for using professional judgment.

• **Animal husbandry** – A cookbook of good operating practices similar to NRCS Standards. Is the CHAPS stuff applicable to all size operations?

• **Rotation tools** - Better info on how to meet feed needs without exposing land to erosion risk (T) or nutrient losses?

• Farmer education on **P index**, PI vs. Risk Level

• **Health Issues** - Nitrates and Pathogens (*clarification of NO₃ regs and health impacts in simple terms*)

• **Sludge** - Sludge Group’s paper

**Teaching Priorities**

• Make sure you address the needs for a comprehensive (nonspecialized) education. Good entrepreneurial skills.

• Focus on practical field application of scientific principles Practical knowledge needed:
  - Communication -(listening, writing, can work with people)
  - cropping systems
  - machinery
  - manure
  - soils –sampling techniques
  - timeliness
  - applied computer skills
  - economics
  - construction knowledge

• Scientific skills needed:
- Need a broad education
- Math
- Engineering; Hydrology
- Chemistry
- Microbiology
- Agronomy; soils, soil conservation; natural resource conservation.
- Pest management
- Animal science; feeds and feeding
- Management skills – farm business management.
- GIS, Aerial photography
- Rural Sociology; History of environ laws; understanding Ag policy

• Special Projects
  - Integrated nutrient management planning with prerequisite courses work study
  - Industry/extension internships. Mentors from industry-job shadowing.
  - Learning what sales / consulting means
  - On-farm experience
  - Independent study…develop a CNMP
  - Stakeholders should be involved in courses

• Other skills
  - Broad holistic view of farm management
  - Ability to analyze a farm of any shape
  - Basic understanding of BMPs
  - Speak a second language (Spanish)
  - Openness and experience with alternative strategies
  - Custom application course

• Create a “Crops Fellows” program
  - Provide cross training -livestock-soils-crops.
  - Troubleshooting skills beyond the specialization (animal specialists should also know a little about crops)
Best Way for University to Reach Stakeholders?

• Electronically
  o Listserves
  o Mass email
  o Websites
  o Electronic newsletter

• Farm Visits

• Meetings
• Magazines
• Radio, TV

How to expand our survey of stakeholders?
• Ask for input during county CCE plan of work dev.
• NEDPA: few q’s in their newsletter
• Small Farms: Dave Smith
• NRAES: What did they find in their ag waste survey from ~2 years ago?
• NYS Farm Show: booth / short survey
• CCE newsletters
• FSA newsletters
• Questionnaire (card) in NE Dairy Biz
• Winter Dairy / Crop road shows
• NYC Watershed forums
• Farm Show
• CNC / Advanced Dairy Nutrition

NOTES:

• List top 5 manure and env (or NM) information needs
  Provide a list of ~10-20 items and let them choose their top 5 (include an “other” line)
• MAKE SURE that some longer view issues make it on the list that hits the field (b/c the majority from the field will be “problems du jour”)