

## MINUTES

**SERA-IEG-17 Annual Meeting**  
**“Minimizing Agricultural Phosphorus Runoff Losses for**  
**Protection of the Water Resource”**  
**(aka “Minimizing Agricultural Phosphorus Losses”)**  
August 9 - 12, 1997  
Portland, Oregon USA

### **Sunday, August 10, 1997**

Field trip, Tualatin Valley, Oregon. Wes Jarrell, Coordinator & host.

### **Monday, August 11, 1997**

8:30 am. Don Graetz, 1996-97 Chairman, brought the 1997 annual meeting to order.  
34 attending (31 - USA; 1 - N. Ireland; 1 - Canada; 1 - England)  
Numerous universities, USDA-ARS, USDA-NRCS, USEPA represented.  
Membership/mailling list circulated for updates  
Agenda additions/corrections/modifications requested

#### Announcements:

Roger Smith                      Meeting in Northern Ireland  
  “P Losses From Agriculture”  
  June 15, 1998  
  Information to be sent to SERA membership

#### CSREES - Maury Horton

Personnel changes: New Undersecretary - Miley Gonzalez  
Hot topics: hypoxia, precision agriculture, higher educ. Funding, soil quality  
Future P targeted (specific funding) no earlier than 2000  
Fund for Rural America:  
    600 center proposals: 35 recommended to submitted to advisory board  
  (probably fund ~10 centers)  
    1,100 \$600,000 core proposals: probably fund ~5%

#### Budget Items

House and Senate: Hatch Act money \$168 million (flat level)  
Water Quality:   ~\$ 2.5 million  
NRI:                ~\$100 million  
                                  (includes \$18 million for Natural Resources & Environ.,  
                                  Biotech, and Genome studies)  
Total CSREES:   \$850 million

#### Allan Jones - Admin. Advisor

SERA-IEG 17 has taken a lead role and is having impact:  
    EPA, State Reg. Agencies, NRCS, dairy, pork, beef, poultry industries  
How to link the work/science of this group w/policy & regulatory process?  
Needs: A piece of paper that states what we need to do to fix agricultural P problems.

Challenge: Develop strategy with specific actions (communications, research) that will impact decision making processes

Comment by Maury Horton: Perhaps Executive Committee should work with Terry Nipp (sp?) to lobby for P initiative. Alan Jones to contact Terry Nipp.

#### Steve Hodges - SERA 17 web site:

Issues for SERA group: site management, maintenance, citation.

Formal academic publications are not always the same as public information documents

SERA-IEG-17 web site hosted by North Carolina State Univ. soils extension server:

<http://ces.soil.ncsu.edu/sera17/>

<http://ces.soil.ncsu.edu/sera17/test/> Not linked - place to float ideas & pubs

Items to be included as website develops: SERA-IEG 17 Mission, publications, addresses of membership & participants, meeting minutes, related links to other sites (NRCS, EPA, etc.)

<http://epa.gov/ow/owow> "surf your watershed"

<http://www.asi.fr/scope>

<http://www.esi.ogi.edu>

#### Frank Coale- Congressional briefing update

"The next step ??"

On May 13, 1997, Rep. Wayne Gilchrest, Maryland's 1<sup>st</sup> District, hosted a 2 ½ hour open briefing on agricultural P issues in the Cannon Building, Washington, DC.

~25 House and Senate staff members, USDA, EPA attending

SERA-IEG 17 members prepared and presented a technical overview, fielded lots of questions, and provided extensive information package w/bullet list of highlights.

Frank Coale: general soil P cycling, eutrophication, manure P

Tommy Daniel: data/conclusions from P runoff studies, plot scale

Andrew Sharpley: data/conclusions from watershed scale studies, landscape issues

Jerry Lemunyon: Q&A

Wes Wood: Q&A

Following the briefing, technical discussion reconvened at Bullfeathers of Capitol Hill and remained quite lively for several hours.

#### Roberta Parry - EPA Update

Federal mood: power and money to states - away from Feds

Federal regulations are set as floors -states may go above and beyond

CAFO - Confined Animal Feeding Operations

In US, 6,600 operations w/greater than 1,000 animal units

Permit required only if direct discharge from waste storage to watershed.

Probably N-based permits will be written for the next 5-12 years.

Land application of manure for CAFOs is subject to zero discharge requirement of permits (if permitted operation).

Water quality standards: draft document available to help states develop N & P standards on their own. No federal standards - only state by state.

Tend to see more moves toward TMDL processes developed by states that focus on specific impaired stream/water body. Most likely, EPA will not regulate NPS loads.

Tommy Daniel - SERA-IEG 17 Position Paper

Issues paper: scientific based

Audience: full paper for policy makers and a scaled-down brief more broadly useable by state agencies, etc.

Comment by Tom Sims: Perhaps we should develop a bibliography of top 100 publications dealing with these topics.

Rob Doneker - Oregon Graduate Institute - "Awards" Program

"Awards" Program - "Agricultural Waste Application". Rule-based decision support.

PC based decision support system for using manure - prioritize sites available for manure use - as per risk to water quality,.

Demonstration: 7:30 pm

Nationwide scope - water quality concerns, soil nutrient levels, crop needs, distance to water bodies, slope, erosion, leaching, waste type

200 "rules" in decision making available on web site: <http://www.ese.ogi.edu>

Wes Wood - Inquiry into the role of the Southern Environmental Law Center

Perhaps they can help with policy presentation.

Usually involved in stricter controls for industrialized farms (eg. swine).

Kate Slaughter, lawyer, SELC contact.

Should an ad hoc committee be set up to pursue/proceed with SELC?

Perhaps we should invite advocacy groups (PPI, pork industry, poultry, etc.) to be part of a meeting for the debate of issues. 1st day of next year's annual meeting?

*General Question:* Should next year's Exec. Comm. entertain the idea of expanding the scope of SERA-IEG 17 to include/expand policy issues? Should we keep it scientific?

Larry Hauck - Texas Institute for Environmental Science & Policy

Offered to help us correctly entertain the policy issues.

Phil Haygarth - UK Perspective

Summary of work on P transfer from grassland soils

Scientific committee on phosphates in Europe ([ecu@net.asi.fr](mailto:ecu@net.asi.fr))

Scope Newsletter No. 21 June 1997

Agriculture as a Source of Phosphorus Transfer to Water: Sources and Pathways.

Roger Smith - UK/Irish Perspective

Summaries of EC legislation, monitoring programs (2.0 µgP/L/yr), peace funding

Regis Simard - Canada Perspective

Summary of P movement from ag landscapes and in-stream measurements.

Nick Aumen - Everglades Restoration P Removal Strategies

Phase I - BMPs and constructed wetlands. Target ÷ 50 ppb Total P

46,000 acres constructed wetlands built

Phase II - Supplemental technologies. Year 2003 ÷ default target 10 ppb TP

Jerry Lemunyon - NRCS nutrient management standard

Handout: Seeking information to be used as underpinnings of NRCS nutrient management standards.

Handout: Major Land Resource Areas (MLRA), seeking information on P for addition to NRCS national soil data base.

Terry Sobecki - P characterization of NRCS benchmark soils:

1. What P parameters are needed?
2. At what scale?
3. Point vs. area data?
4. How to develop/collect parameter values?
5. How to use parameters?

Rob Mikkelsen- As issue not to be overlooked: P leaching - Atlantic Coastal Plain  
Organic P mobility needs to be evaluated.

Wrap Up Day One:

Allan Jones - Terry Nipp said no.

Maury Horton, Ralph Otto - initiate proposal thru CSREES for formation of a national initiative on P and environment. Draft proposal development needed asap.

*Miscellaneous reference:*

H. Tunney, O.T. Carton, P.C. Brookes, and A.E. Johnston. 1997  
"Phosphorus Loss From Soil To Water" CAB International  
e-mail: cabi-nao@cabi.org NYC  
e-mail: cabi@cabi.org Wallingford, UK

**Tuesday, August 12, 1997**

Business: 1998 meeting, Ft. Worth, Texas, summer  
Larry Hauck, Tarleton St. University, local arrangements coordinator  
Jerry Lemunyon promises a good tour, good entertainment, cool weather.

1999 meeting, Quebec City - possibly  
Regis Simard, local arrangements coordinator - possibly

1997/1998 Secretary: Steve Hodges, North Carolina State Univ.

Task Group Reports

Task Group #1a: Tom Sims

Final draft bulletin: Soil Testing For Phosphorus Environmental Uses & Implications:  
Almost done - projected completion, September 1997.

Should SERA-IEG-17 be promoting environmental soil testing to soil test labs?  
Tom Sims to solicit input for P bibliography and hopefully print ~1,000 copies for distribution fall 1997.

Task Group #1b - Methods for Testing Soil, Water and Wastes for P: Gary Pierzynski  
Proposed SERA bulletin - Methods of P determined, colorimetric, ICP, others

To include sampling, handling, storage, etc.

Sections for soils (multiple methods for multiple purposes) and water.

For each method: 1-3 pages on when and how used, nomenclature, procedure/protocol

To include: glossary & interpretation; calculation/conversions

Estimated for sale price: \$1.25 to \$6.00 per copy

Gary Pierzynski - editor

Task Group #2 - P Transport: Bill Gburek for Andrew Sharpley

Group needs to prepare a bulletin of current knowledge and understanding

Bill Gburek will head effort to initiate document.

Task Group #3- Best Management Practices: Bob Stevens

Style sheet distributed

Distributed list of 37 topics and assigned authors

Examples: Cover Crop BMP (draft), Reducing P in Diet and Manure, Manure Spreader Calibration

Task Group #4 - Receiving Water Sensitivity to P: Wes Jarrell

Discussion of volunteer (student) water data collection. Successful.

Objective: Produce documents for use by state departments and agencies that give guidance on the qualities/characteristics of aquatic systems that determine sensitivity to P influx or difficulty of remediation of excessive P.

Completion of rough draft expected October 20-21, 1997.

Task group meeting to plan next activity.

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Break for Task Group work sessions  
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### Tasks for 1998 Annual Meeting

Task Group #1: Soil Test Group - Tom Sims

1. Preparation of draft methods manual for soil, sediments, water, biosolids/manure.

2. Preparation of bibliography on P.

Task Group #2: Transport Group - Bill Gburek

1. P transport publication

Chapter 1 - Transport concerns

Chapter 2 - Framework

Chapter 3 - Soil P/water P relationships

Chapter 4 - Soil P testing associations

## Chapter 5 - Hydrology

Presentation at different scales: point, surface, subsurface, slope, field, catchment scale.  
Need to make working ties with limnology group.

### Task Group #3: BMPs - Bob Stevens

BMP list and expanded rough draft due Dec. 1, 1997.

All BMPs to be posted on website

All BMP's reviewed by 4 specified people

### Task Group #4: Sensitivity of Aquatic Systems - Wes Jarrell

Focus only on water bodies:

Include lakes, streams & estuaries

Input forms -sediment vs. dissolved

Oct. 20-21, meeting with Smithsonian group

Future effort: watershed sensitivity (soils, plants)

**ADJOURN**