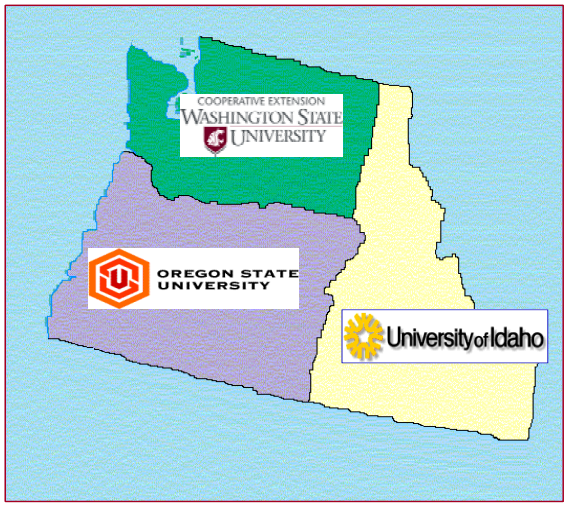

WIN^{2}ME

Western Integrated Nutrition and Nutrient Management Education

"Feed Management Education for the Agricultural Professional"

The Feed Management Education Program is a joint effort amongst faculty from Washington State University, Oregon State University, and the University of Idaho. The overall goal of the Education Project is to provide "Feed Management Education in Nutrition and Nutrient Management for Livestock and Poultry Professionals". The education program is a professional development project of the USDA Western Region Sustainable Agriculture Research and Education (SARE) Program.

The intended audience is staff of the NRCS, Conservation Districts, Nutrient Management Consultants, Nutrition-Management Consultants, and designated Nutrient Management Specialists of large animal operations.

Specific Objectives are:

1) **Provide training to Ag Professionals in feed management concepts and practices that minimize the import of nutrients to the farm and provide economic and environmental sustainability**

2) **Provide training in the use of computer models and software for strategic ration balancing, whole farm nutrient balance, and whole farm economics**

3) **Develop educational materials that are specific to the Pacific Northwest regional animal industries while utilizing national curriculum developed to address nutrition in the context of nutrient management**

4) **Provide workshop materials that could be used by other states in the region.**

<u>Background about Nutrition and Nutrient Management</u>

The US Environmental Protection Agency (EPA) released new guidelines for Concentrated Animal Feeding Operations and Animal Feeding Operations (CAFO/AFO) in 2003. Under the new guidelines, CAFO/AFO's are required to develop a Nutrient Management Plan (NMP). One form of a Nutrient Management Plan is a Comprehensive Nutrient Management Plan and is defined in the Natural Resources Conservation Service (NRCS) National Planning Procedures Handbook (http://www.nrcs.usda.gov/programs/afo/cnmp_guide_600.54.html). There are six components of a CNMP:

1) **Feed Management,**
2) **Manure and Wastewater Handling and Storage,**
3) **Nutrient Management,**
4) **Land Treatment,**
5) **Record Keeping, and**
6) **Other Manure and Wastewater Utilization Options.**

The Nutrient Management element of a CNMP contains nine components. Nutrient Management Plans have been developed for most of the dairies in WA, OR, and ID, however, the Feed Management component of a CNMP is not part of Nutrient Management Plans in the region. Very few other livestock operations (beef, swine and poultry) in the region are required to or have voluntarily adopted Nutrient Management Plans.

Feed represents the largest import of nutrients to the farm, followed by commercial fertilizer (CAST Issue Paper # 21 – Animal Diet Modification to Decrease the Potential for Nitrogen and Phosphorus Pollution -http://www.cast-science.org/castpubs.htm#animaldietmodif).

Feeding Management opportunities currently exist to reduce imports of nutrients, particularly nitrogen and phosphorus, to most animal and livestock operations. The technologies and approaches to achieve these reductions vary in their degree of economic feasibility and environmental impact.

Agricultural professionals need to understand the degree of success that can be expected both from and economic and an environmental standpoint.

Educational Approaches

A combination of educational approaches will be used during the project and will include: workshops, field days, case studies, a web based newsletter, virtual tours, and computer software training. A training manual is envisioned as one product from the project, complete with power point presentations. Field days at commercial facilities and case studies will be used to highlight innovative practices and showcase adoption of the latest technologies.

It is anticipated that there will be a module system of education blocks developed that are tailored to the participant's previously defined understanding of nutrition and feeding management.

This module system is envisioned to include "Feeding Management 101" for the participant that wants to be able to converse about feeding management but not be actively making on-farm recommendations. Advanced modules will address applications of feeding management strategies with case studies. In addition, the option to receive training in the use of computer models and software for strategic ration balancing, whole farm nutrient balance, and whole farm economic analysis will be provided.

Program Coordination

The program will be developed and coordinated by faculty from Washington State University, University of Idaho, and Oregon State University with primary leadership by Joe Harrison, Nutrient Management Specialist at Washington State University.

Other lead faculty are:

Ron Kincaid – Washington State University
Alex Hristov and Ron Sheffield – University of Idaho
Mike Gamroth, Pat French, and Troy Downing – Oregon State University.

The Education Manager will be Lynn VanWieringen, 253-906-9627 or vanwieringen@wsu.edu of WSU.

If you are interested, please make contact with Lynn VanWieringen to register for an upcoming event.