

Nitrogen Management Training and Certification Program For Certified Crop Advisors

The proposed Nitrogen Management Training and Certification Program is a joint effort between the California Department of Food and Agriculture (CDFA), the California Certified Crop Advisor Program (CA CCA), the University of California, Agricultural and Natural Resources (UC ANR) and the Regional Water Boards to develop and implement a voluntary nitrogen management curriculum specifically targeted for California Certified Crop Advisors (CCAs). The curriculum will address the management of nitrates from plant nutrients to reduce unintentional emissions in waters throughout the state.

The goal of the Program is to facilitate CCAs understanding of sound nitrogen management practices and increase their ability to make informed recommendations to growers, thereby improving environmental performance relative to nitrogen management for crop production.

The major curriculum sections are:

1. Background – nitrogen use efficiency and regulation of irrigated agriculture
2. Regional Influences
3. Nitrogen Requirements of California Crop
4. Sources of Nitrogen to Supply the Crop's Needs
5. Potential Nitrogen Losses – interaction between nitrogen, irrigation and tillage practices
6. Possible Methods of Assessing and Reassessing Yield Potential and Related Nitrogen Needs of Crops
7. Soil, Plant Tissue and Water Testing for Nitrogen Status and Needs of Crops
8. Best Management Practices for Applying Supplemental Nitrogen Applications to Crops
9. Best Management Practices for Irrigation to Prevent Nitrate Leaching
10. How to Find New Information
11. How to Develop a Nitrogen Budget Worksheet

Our intention is to begin with geographically relevant general training (sections 1 to 5) and then provide specific annual/perennial guidelines in two concurrent sessions (topics 6 to 9). We will finish up with topics 10 and 11 which will include some hands-on exercises in developing and understanding worksheets and nitrogen management plans. We may concentrate on the most important crops in an area during the second part of the training.

We anticipate that this course will be one to two days in length.

The initial areas targeted for training will be the Central and Salinas Valleys.

The target date for completion of program development is December 1, 2013.

The structure for the development of the program is as follows. The CDFA and the UC ANR's California Institute for Water Resources (CIWR) will coordinate the administrative aspects of the process. A steering committee (CDFA and UC ANR) will manage the programmatic process. A curriculum development committee (UC, CSU and Cal Poly) will pull together and assemble the materials for the training. An advisory group consisting of stakeholders from government, industry and academia will review and provide suggestions for the curriculum development committee. A UC ANR CIWR writer will do the final assembly of the training materials. Once the training materials are completed, the CA CCA will coordinate meeting set-up, location and advertising. UC ANR, CSU and Cal Poly will provide instructors for the program. CDFA will participate by assisting the other organizations, as necessary, and by certifying those who complete the program.