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### COLORADO MANURE REGULATIONS: UNDER REVIEW

The Colorado Water Quality Control Commission is currently reviewing the Confined Animal Feeding Operations Control Regulation to determine whether this regulation needs revision in order to insure protection of the state's water. The Commission has formed a work group whose purpose is to make recommendations to the Commission.

The topics which the work group has been asked to address are:

- 1) Off-site manure application
- 2) Adequacy of land application provisions
- 3) Adequacy of retention structure provisions
- 4) Scope of coverage
- 5) Long-term impacts
- 6) Information base
- 7) Resources for implementation

The work group includes water districts, health departments, commodity groups, Sierra Club, Rocky Mountain Farmers Union, Colorado Farm Bureau, Natural Resources Conservation Service, Colorado State University, and Colorado Department of Agriculture. The work group is scheduled to meet every two weeks through the end of October, and work group meetings are open to anyone. An informational hearing is scheduled for

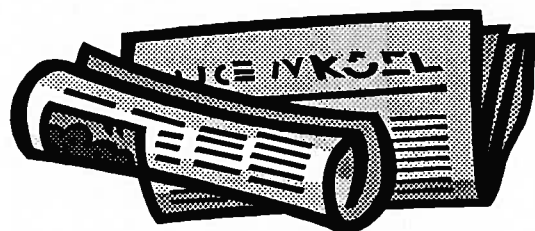
November 3 for presentation of the work group's conclusions to the Water Quality Control Commission.

If you would like to attend the work group meetings or express your opinion on these possible changes to the regulation, feel free to call Derald Lang (Water Quality Control Division) at (303)692-3561 or Paul Frohardt (Water Quality Control Commission) at (303)692-3526.

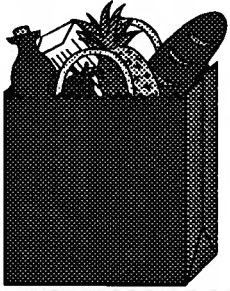
☛Davis

### A NOSE FOR NEWS


We invite Extension agents and regional specialists to contribute research results, announcements, or informational articles for submission to this newsletter. We are also interested in hearing of any unusual or interesting questions pertaining to soil, crops, or water that you are receiving from your clientele. Please submit articles to one of the state specialists listed on the back page for review. We will try to accommodate as many of these articles and questions as possible. ☛Davis



# An Overview of the Food Quality Protection Act




Since August 3, 1996, almost every conversation regarding pesticide issues has included the phrase "Food Quality Protection Act (FQPA)." Many people believe this to be the most significant legislation to affect agriculture in the last decade. The act amends the two major laws involving pesticides: the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA). FQPA revises FFDCA so the 1958 Delaney Clause no longer affects pesticides. In effect, the zero cancer risk standard for pesticide residues in some processed foods is replaced by a single "safe" standard of a reasonable certainty of no harm to consumers from pesticide residues in raw and processed foods. "Reasonable certainty" is a one in one million risk of cancer over a 70 year lifetime. The safety standard creates four areas for EPA review: 1) cumulative effects (common mechanism of toxicity); 2) aggregate exposure; 3) sensitivities of major subgroups (such as infants and children); and 4) estrogenic effects. FQPA focuses on consumers and food, not the farmer. FQPA was designed to improve food safety in the United States so that the public will be more confident that their food is safe, especially for infants and children. Another stated purpose of FQPA was to base pesticide registration on sound scientific principles and make the process more efficient.



**Cumulative Effects (Multiple Exposures).** EPA must consider multiple exposures to a single pesticide, as well as exposure to a range of chemicals with the same type of toxicity.

**Aggregate Risk.** EPA will consider the risk posed by the pesticide from all routes of exposure, dietary and non-dietary.



**Provides Protection for Infants and Children.** For the first time, EPA is required to make special consideration of the health of infants and children. The margin of safety can be increased an additional 10-fold, if necessary, for residues that may harm children either before or after birth. EPA has stated it will use the 10-fold factor when the data is deemed unreliable (i.e., nonexistent).

**Endocrine Disrupting Chemicals.** FQPA requires that EPA develop a screening program for estrogenic effects within two years, implement the program within three years, and report to Congress within four years.

**Consumers' Right to Know.** FQPA requires EPA to prepare for produce retailers a brochure discussing the risks and benefits of pesticides, how to avoid risks including recommending substitute foods, and identifying foods that have tolerances for pesticide residues granted under the provisions of FQPA. This law's version of right-to-know is the annual publication and distribution by the EPA of a pamphlet describing the risks and benefits of pesticides. Information must also be posted in grocery stores selling food treated with pesticides for which exemptions were granted.

**Requires Reevaluation of Tolerances.** FQPA requires all existing pesticide residue tolerances to be reviewed within 10 years to ensure they meet the new health-based standard. The reassessment of each tolerance takes into account aggregate exposure, cumulative effects, any special susceptibility of infants and children, and possible endocrine effects to humans.

**Reassessment of Tolerances Part of Reregistration.** Pesticide registration review is now required on a 15-year cycle to ensure that all pesticides meet new safety standards. EPA plans to reassess one third of all existing tolerances and exemptions by August 1999, another one third by August 2002, and the remainder by August 2006. EPA is to publish by August 1997 a fully developed plan for completing reassessment of the existing tolerances. There are 620 pesticidal compounds registered with EPA. These active ingredients are formulated into about 20,000 registered products, of which about half, or 9,300, are used on food or feed crops. Office of Pesticide Programs (OPP) will focus first on the "probable" human carcinogens (classified as B-2), then tackle the "possible" human carcinogens (C compounds) as a part of EPA's stated intent to "attack the worst first".

Specifically, organophosphates, carbamates, triazines, pyrethroids and B-2 carcinogens are the classes of chemistry the EPA will scrutinize during the first three years of the reassessment.

**Registration of Reduced-Risk Pesticides.** FQPA provides for quick review of reduced-risk pesticides to enable them to reach the market sooner to replace older, potentially more risky chemicals.

**Minor-Use Pesticides:** FQPA establishes minor-use programs in EPA and USDA to coordinate use issues and policy and provides a revolving grant fund to develop data necessary to register minor-use pesticides. FQPA encourages minor-use registrations through extensions for submitting pesticide residue data and exclusive use of data, flexibility to waive certain data requirements, and requiring EPA to expedite review of minor use applications.

Under the FQPA, the EPA could revoke numerous tolerances. In cases where EPA representatives consider a toxicology data base to be incomplete, average daily intake may be reduced by 90%. The net result is that long standing uses are likely to be canceled.

The analogy of a "risk cup" is being used to describe aggregate exposure estimates. The full cup represents the total reference dose (RfD); each use of the pesticide contributes a specific amount of exposure that adds a finite amount of risk to the cup. As long as the cup is not full, meaning that the combined total of all estimated sources of exposure to the pesticide has not reached 100% of the RfD, EPA can consider registering additional uses and setting new tolerances. It has been decided that, in general, 80% of the risk cup will be set aside for dietary exposures. The remaining 20% of the risk cup will be left for non-dietary risk with 10% from water, 5% lawn and 5% residential exposure.

The goal of FQPA is admirable. The question is "how do we get there?" EPA representatives estimate that the agency will require three years to write the regulations and draft the policies needed to implement FQPA. Not even the EPA understands its provisions completely or knows for certain how they will be implemented.

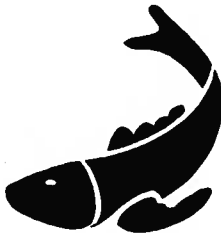
To fill the "risk cup" EPA has food-use pesticide data, some water exposure data, but very little data on other types of exposure. In the event data is not available, EPA will assume that the maximum rate of every pesticide is used in the situation being considered. While this is not accurate, EPA must take the most conservative approach to protect the population. Likewise, under the State Management Plan, if a state cannot show geographic pesticide use on specific crops, it must assume that use is statewide and must design their plan accordingly. To address this need, the Colorado Department of Agriculture (CDA), in conjunction with Colorado State University (CSU), is planning a pesticide use survey to be conducted this fall and winter. By providing complete and accurate data, inflated assumptions about pesticide use can be avoided, thereby, preserving the usage of many products. We cannot afford the loss of pesticides, particularly on minor crops, because of inaccurate assumptions. By working together we can provide accurate data concerning pesticides and insure that agriculture continues to have the valuable tools it needs to remain economically viable.

Through the Colorado Agricultural Statistics Service (CASS), all commercial applicators, including urban and structural applicators, will be asked to complete a pesticide use survey this fall and winter. Within the next month all commercial applicators will receive a copy of the final draft of the survey document, in order to be aware of what data is being sought and how the questionnaire will be arranged. This survey will be time consuming, but hopefully knowing what will be asked upfront will make it easier to provide the data when the survey is conducted. If you have questions concerning the form or other aspects of the survey, please do not hesitate to call Linda Coulter or Mitch Yergert of the CDA at (303)230-4140, or Sandra McDonald of CSU Cooperative Extension at (970) 491-6027.

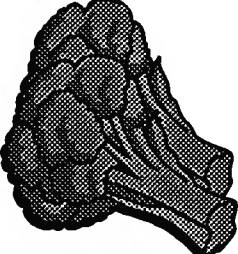
☛ McDonald




## NEW CROPS RECEIVE HELP FROM THE FUND FOR RURAL AMERICA



I have just returned from Washington, D.C. where I evaluated 56 proposals for regional centers with a value-added agriculture focus. The proposals varied from mariculture (farming salt water fish) to new uses for wheat and soybeans to forestry. I was a judge since we didn't have any applications from Colorado. Just to let you know what we missed out on, the Fund for Rural America expects to fund 10 to 12 center feasibility studies at \$25,000 each for 6 months. Those that are judged feasible (6 to 8 expected) will be funded at up to \$1 million/year for up to 4 years. The value-added centers are expected to be the keystone of the new ag bill so don't expect them to go away.



Those proposals that were recommended for funding generally have a common theme: regional in aspect with the potential to be pilot programs for other centers. There are several proposed centers that Colorado could become a part of if we show some interest. The program is continuing, and the feeling in Washington is that the subsidy programs will not be revisited or resuscitated. Talk to the leaders in your communities to determine if there is an interest. If so, let's start networking now on a project that could develop into a value-added industry in this state. Keep in mind, it's easier to sell this project in Washington if it is regional. I'm willing to work with you as long as the project is feasible. In fact, I would do a lot to get a proposal in so I don't have to go to Washington D.C. again!



So what would be feasible? Value-added processing of vegetables, niche marketing grain (new wheat, oats, corn, barley, etc.), fish farming and processing, almost anything that adds value to the rural community. We do need to start now, however. It is important that the targeted communities be involved in the decision making process, and they should be willing to provide some kind of matching funds and/or sweat equity to make it work. Also, any management fees (such as salaries for the principle investigators) are frowned upon.

☛ D. Johnson

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### CONTRIBUTING AUTHORS

**Brick, Mark A.,**  
Extension Agronomist - Bean Production  
**Davis, Jessica G.,**  
Extension Agronomist - Soils  
**Johnson, Duane L.,**  
Extension Agronomist - New Crops  
**Johnson, Jerry J.,**  
Extension Agronomist - Crop Production  
**McDonald, Sandra K.,**  
Extension Agronomist - Pesticides  
**Self, James T.,**  
Manager - Soil Testing Laboratory  
**Waskom, Reagan M.,**  
Extension Agronomist - Water Quality

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*Sincerely,*

*Jessica Davis*  
*Editor and Soil Scientist*

