

DEPARTMENT OF AGRICULTURE**Cooperative State Research,
Education, and Extension Service****Special Research Grants Program—
Pest Management Alternatives
Research: Special Program
Addressing Food Quality Protection
Act Issues for Fiscal Year 1998;
Request for Proposals**

AGENCY: Cooperative State Research, Education, and Extension Service, USDA.

ACTION: Notice of availability of grant funds and request for proposals.

SUMMARY: Proposals are invited for competitive grant awards under the Special Research Grants Program titled "Pest Management Alternatives Program: Addressing Food Quality Protection Act Issues for Fiscal Year 1998." This program addresses anticipated changes in pest management on food, feed, livestock, and ornamental commodities resulting from implementation of the Food Quality Protection Act of 1996 (FQPA), Pub. L. No. 104-170.

The goals of this program are to: (1) Develop commodity profiles that summarize production practices, pesticide use/usage data, and available pest management alternatives for pesticides considered a high priority for tolerance reassessment under FQPA; and (2) Develop and demonstrate alternatives and possible mitigation strategies to ensure that producers have reliable methods of managing pests.

DATES: Proposals are due July 20, 1998.

ADDRESSES: Proposals sent by First Class mail must be sent to the following address: Special Research Grants—Pest Management Alternatives; c/o Proposal Services Unit; Office of Extramural Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; STOP 2245; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-2245. Telephone: (202) 401-5048.

Proposals that are delivered by Express mail, courier service, or by hand must be sent to the following address: Special Research Grants—Pest Management Alternatives; c/o Proposal Services Unit; Office of Extramural Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Room 303, Aerospace Center; 901 D Street, S.W.; Washington, D.C. 20024. Telephone: (202) 401-5048.

FOR FURTHER INFORMATION CONTACT: Michael Fitzner, Cooperative State Research, Education, and Extension

Service; U.S. Department of Agriculture; STOP 2220; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-2220. Telephone: (202) 401-4939; fax number: (202) 401-6156; e-mail address: mfitzner@reeusda.gov.

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Authority and Eligibility

This program is administered by the Cooperative State Research, Education, and Extension Service (CSREES), United States Department of Agriculture (USDA). The authority is contained in section 2(c)(1)(A) of the Act of August 4, 1965, Pub. L. No. 89-106, as amended (7 U.S.C. 450i(c)(1)(A)). Under this authority, subject to the availability of funds, the Secretary may make grants, for periods not to exceed five years, to State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals for the purpose of conducting research to facilitate or expand promising breakthroughs in areas of the food and agricultural sciences of importance to the United States.

Proposals from scientists affiliated with non-United States organizations are not eligible for funding nor are scientists who are directly or indirectly engaged in the registration of pesticides for profit; however, their collaboration with funded projects is encouraged.

The Pest Management Alternatives Program was established to support the development and implementation of pest management alternatives when regulatory action by the Environmental Protection Agency (EPA) or voluntary cancellation by the registrant results in the unavailability of certain agricultural pesticides or pesticide uses. The program was created to meet the policy goals set forth in sections 1439 and 1484 of the Food, Agriculture, Conservation and Trade Act of 1990, Pub. L. No. 101-624. These activities pertain to pesticides identified for possible regulatory action under section 210 of

the Food Quality Protection Act of 1996, which amends the Federal Insecticide, Fungicide, and Rodenticide Act. The program has been developed pursuant to the Memorandum of Understanding (MOU) between USDA and EPA signed August 15, 1994, and amended April 18, 1996, which establishes a coordinated framework for these two agencies to support programs that make alternative pest management materials available to agricultural producers when regulatory action by EPA or voluntary cancellation by the registrant results in the unavailability of certain agricultural pesticides or pesticide uses. In this MOU, USDA and EPA agreed to cooperate in conducting the research, technology transfer, and registration activities necessary to ensure adequate pest management alternatives are available to meet important agricultural needs for situations in which regulatory action would result in pest management problems. Any proposal meeting the criteria under this request for proposals will be considered for funding provided the eligibility requirements are met.

Available Funding and Eligibility

The amount available for support of this program in fiscal year (FY) 1998 is approximately \$1,500,000. It is anticipated that EPA will provide \$124,000 in support of Objective 1. Section 712 of the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 1998, Pub. L. No. 105-86, prohibits CSREES from paying indirect costs on competitively awarded research grants that exceed 14 percent of total Federal funds provided for each award under this program. In addition, section 716(b) of that Act directs that, in the case of any equipment or product that may be authorized to be purchased with funds under this program, entities receiving such grant funds are encouraged to use such funds to purchase only American-made equipment or products.

Applicable Regulations

This program is subject to the administrative provisions for the Special Research Grants Program found in 7 CFR Part 3400 (56 FR 58147, November 15, 1991), which set forth procedures to be followed when submitting grant proposals, rules governing the evaluation of proposals, the processes regarding the awarding of grants, and regulations relating to the post-award administration of such grants. Other Federal statutes and regulations apply to grant proposals considered for review or to grants

awarded under this program. These include, but are not limited to:

7 CFR Part 3019—USDA Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations; and

7 CFR Part 3052—Audits of States, Local Governments, and Non-Profit Organizations.

Program Description

This competitive grants program supports efforts to modify existing pest management approaches or develop new methods that address needs created by the implementation of FQPA. The program also addresses the need for collection of information for regulatory decision making and for prioritization of research and education needs. This information includes pesticide use and usage on commodities (including livestock and ornamentals), potential alternatives for pesticides on EPA's priority list (see Appendix I), integrated pest management programs, pesticide resistance management strategies, and potential mitigation strategies for reducing dietary risk.

In FY 1998, CSREES will provide funding for projects that: (1) Develop pest management profiles summarizing practices for specific commodities or commodity groups (including livestock and ornamentals), and (2) Identify and develop replacement or mitigation technologies for pesticides included on EPA's priority list (Appendix I). Proposals must either develop Commodity and Pest Management Profiles (Objective 1) or develop *both* Commodity and Pest Management Profiles (Objective 1) *and* replacement or mitigation technologies (Objective 2). Applicants are encouraged to collaborate with staff involved in university pesticide impact assessment programs and integrated pest management programs to develop Commodity and Pest Management Profiles. The two objectives are described below.

I. Commodity and Pest Management Profiles

Profiles are needed for commodities that depend heavily on pesticides included on EPA's priority list (see Appendix I and Appendix II). Profiles should document the importance of priority pesticides to pest management on the commodities addressed by the proposal. Profiles should describe the production process and provide data on pesticide use (how, why, what, when and where pesticides are used) and usage (how much is used, e.g., percentage crop treated) patterns, pest

management practices used by growers, and pest management practices ready for implementation but not yet widely used. Profiles should also indicate whether pesticides on the priority list (Appendix I) are important to integrated pest management programs or to strategies to manage resistance to other pesticides, and whether there are any potential labeled or unlabeled alternatives (chemical or nonchemical) to replace priority list pesticides on a specific commodity or commodity group. Alternatives can include other pesticides, biological controls, pest resistant varieties, or cultural practices. In addition, practices or procedures that have the potential to mitigate dietary risk from priority list pesticides should be described. Pest management profiles should follow the format presented in Appendix III. The sources for information used in preparing pest management profiles should be provided in the "References" section. Potentially affected growers or commodity groups must be involved in the development of commodity and pest management profiles. *Profiles must be completed within six months after receipt of funding.* Priority will be given to proposals addressing one or more commodities that depend heavily on pesticides included on EPA's priority list (see Appendix I and Appendix II); however, proposals addressing commodities not included in the list will be considered.

II. Replacement or Mitigation Technologies

Funding is available to support projects to develop and demonstrate pest management alternatives or risk mitigation strategies for one or more of the priority pesticides (Appendix I) for which there are few or no effective alternatives on any given commodity. The focus should be on modification of existing approaches or introduction of new methods, especially biologically based methods, that can be rapidly brought to bear on pest management challenges resulting from implementation of FQPA. Durability and practicality of the proposed pest management option(s) or mitigation procedure(s), and compatibility with integrated pest management systems, are critical. Both technological and economic feasibility should be considered. Pest management alternatives or risk mitigation options identified should address various risk concerns including dietary, occupational and non-occupational exposure, ground and surface water, and other ecological risks.

Note: The development of replacements for methyl bromide is being supported by other funding agencies and will not be supported by the Pest Management Alternatives Program.

Proposals will show evidence that producers, commodity groups, and other affected user groups are involved in project design and will be supportive of the project if funded. Public-private partnerships and matching resources from non-Federal sources, including producer or commodity groups, are encouraged. Proposals should show potential for commercialization (including product registration if necessary) of any new technologies that are developed.

Proposal Format

Members of review committees and the staff expect each project description to be complete in itself. The administrative provisions governing the Special Research Grants Program, 7 CFR Part 3400, set forth instructions for the preparation of grant proposals. The following requirements deviate from those contained in § 3400.4(c). The following provisions of this solicitation shall apply. Proposals should adhere to the format requirements for the specific objective addressed by the proposal format below. Items three through six should be no more than 12 pages in length, numbered, and single-spaced with text on one side of the page using a 12 point (10 cpi) type font size and one-inch margins.

(1) *Application for Funding (Form CSREES-661).* All proposals must contain an Application for Funding (Form CSREES-661), which must be signed by the proposed principal investigator(s) and by the cognizant Authorized Organizational Representative who possesses the necessary authority to commit the applicant's time and other relevant resources. Principal investigators who do not sign the proposal cover sheet will not be listed on the grant document in the event an award is made. The title of the proposal must be brief (80-character maximum), yet represent the major emphasis of the project. Because this title will be used to provide information to those who may not be familiar with the proposed project, highly technical words or phraseology should be avoided where possible. In addition, phrases such as "investigation of" or "research on" should not be used.

(2) *Table of Contents.* For ease in locating information, each proposal must contain a detailed table of contents just after the proposal cover page. The Table of Contents should include page numbers for each component of the

proposal. Pagination should begin immediately following the Table of Contents.

(3) *Executive Summary.* Describe the project in terms that can be understood by a diverse audience of university personnel, producers, various public and private groups, budget staff, and the general public. This should be on a separate page, no more than one page in length and have the following format: Name(s) of principal investigator(s) and institutional affiliation, project title, key words, and project summary.

(4) *Problem Statement.* Identify the pest management problem addressed, its significance, and options for solution. Identify the commodities (from the commodity list, Appendix II) and the pesticides (from the priority list, Appendix I) that will be addressed by the proposed project. Proposals can address commodities not listed in Appendix II as long as priority pesticides are used in the production system. Describe the production area addressed (including acreage), frequency and severity of losses to pests controlled with priority pesticides (Appendix I), and the potential applicability to other production regions (if the proposal addresses Objective 2). Provide sources of data and other information on pesticide use, usage patterns, and pest management practices. As appropriate, proposals should address issues as they relate to current integrated pest management and crop production practices, technologic and economic feasibility of potential new practices, and their potential durability.

(5) *Objectives.* Provide clear, concise, complete, and logically arranged statements of the specific aims of the proposed effort.

(6) *Research, Education, and Technology Transfer Plan.* This section is only needed if the proposed project includes development of replacement or mitigation technologies (Objective 2). Proposals should provide a detailed plan for the research, education, and technology transfer required to implement the alternative solution in the field, and should identify milestones.

(7) *User Involvement.* Describe role of producers, commodity groups, and other end-users in identifying the need for the work being proposed, and their anticipated involvement in the project if funded. Competitive proposals will demonstrate involvement of affected user groups in project design, implementation, and funding.

(8) *Facilities and Equipment.* All facilities and major items of equipment that are available for use or assignment

to the proposed research project during the requested period of support should be described. In addition, items of nonexpendable equipment necessary to conduct and successfully complete the proposed project should be listed with the amount and justification for each item.

(9) *Collaborative Arrangements.* If the nature of the proposed project requires collaboration or subcontractual arrangements with other research scientists, corporations, organizations, agencies, or entities, the applicant must identify the collaborator(s) and provide a full explanation of the nature of the collaboration. Funding contributions by collaborators that will be used to accomplish the stated objectives should be identified. Evidence (i.e., letters of intent) should be provided to assure peer reviewers that the collaborators involved have agreed to render this service. In addition, the proposal must indicate whether or not such a collaborative arrangement(s) has the potential for conflict(s) of interest.

(10) *Personnel Support.* To assist peer reviewers in assessing the competence and experience of the proposed project staff, key personnel who will be involved in the proposed project must be clearly identified. For each principal investigator involved, and for all senior associates and other professional personnel who are expected to work on the project, whether or not funds are sought for their support, the following should be included:

(i) An estimate of the time commitments necessary;

(ii) Curriculum vitae. The curriculum vitae should be limited to a presentation of academic and research credentials, or commodity production knowledge or experience with that commodity (e.g., educational, employment and professional history, and honors and awards). Unless pertinent to the project, to personal status, or to the status of the organization, meetings attended, seminars given, or personal data such as birth date, marital status, or community activities should not be included. Each vitae shall be no more than two pages in length, excluding the publication lists; and

(iii) Publication List(s). A chronological list of all publications in refereed journals during the past four years, including those in press, must be provided for each professional project member for whom a curriculum vitae is provided. Authors should be listed in the same order as they appear on each paper cited, along with the title and complete reference as these items usually appear in journals.

(11) *Budget.* A detailed budget is required for each year of requested support. In addition, a summary budget is required detailing requested support for the overall project period. A copy of the form which must be used for this purpose (Form CSREES-55), along with instructions for completion, is included in the Application Kit and may be reproduced as needed by applicants. Funds may be requested under any of the categories listed, provided that the item or service for which support is requested may be identified as necessary for successful conduct of the proposed project, is allowable under applicable Federal cost principles, and is not prohibited under any applicable Federal statute. However, the recovery of indirect costs under this program may not exceed the lesser of the grantee institution's official negotiated indirect cost rate or the equivalent of 14 percent of total Federal funds awarded. This limitation also applies to the recovery of indirect costs by any subawardee or subcontractor, and should be reflected in the subrecipient budget.

Note: For projects awarded under the authority of Sec. 2(c)(1)(A) of Pub. L. No. 89-106, no funds will be awarded for the renovation or refurbishment of research spaces; the purchase or installation of fixed equipment in such spaces; or for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.

(12) *Research Involving Special Considerations.* If it is anticipated that the research project will involve recombinant DNA or RNA research, experimental vertebrate animals, or human subjects, an Assurance Statement, Form CSREES-662, must be completed and included in the proposal. Please note that grant funds will not be released until CSREES receives and approves documentation indicating approval by the appropriate institutional committee(s) regarding DNA or RNA research, animal care, or the protection of human subjects, as applicable.

(13) *Current and Pending Support.* All proposals must contain Form CSREES-663 listing this proposal and any other current public or private research support (including in-house support) to which key personnel identified in the proposal have committed portions of their time, whether or not salary support for the person(s) involved is included in the budget. Analogous information must be provided for any pending proposals that are being considered by, or that will be submitted in the near future to, other possible sponsors, including other USDA programs or agencies. Concurrent submission of identical or similar proposals to other possible sponsors

will not prejudice proposal review or evaluation by the Administrator of CSREES for this purpose. However, a proposal that duplicates or overlaps substantially with a proposal already reviewed and funded (or that will be funded) by another organization or agency will not be funded under this program.

(14) Additions to Project Description. The Administrator of CSREES, the members of peer review groups, and the relevant program staff expect each project description to be complete while meeting the page limit established in this section (Proposal Format). However, if the inclusion of additional information is necessary to ensure the equitable evaluation of the proposal (e.g., photographs that do not reproduce well, reprints, and other pertinent materials that are deemed to be unsuitable for inclusion in the text of the proposal), then 14 copies of the materials should be submitted. Each set of such materials must be identified with the name of the submitting organization, and the name(s) of the principal investigator(s). Information may not be appended to a proposal to circumvent page limitations prescribed for the project description. Extraneous materials will not be used during the peer review process.

Note: Specific organizational management information relating to an applicant shall be submitted on a one-time basis prior to the award of a grant for this program if such information has not been provided previously under this or another program for which the sponsoring agency is responsible. If necessary, USDA will contact an applicant to request organizational management information once a proposal has been recommended for funding.

Compliance with the National Environmental Policy Act

As outlined in 7 CFR Part 3407 (CSREES's implementation of the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*)), the environmental data or documentation for any proposed project is to be provided to CSREES in order to assist CSREES in carrying out its responsibilities under NEPA. In some cases, however, the preparation of environmental data or documentation may not be required. Certain categories of actions are excluded from the requirements of NEPA. The USDA and CSREES exclusions are listed in 7 CFR 1b.3 and 7 CFR 3407.6, respectively.

In order for CSREES to determine whether any further action is needed with respect to NEPA (e.g., preparation of an environmental assessment (EA) or environmental impact statement (EIS)),

pertinent information regarding the possible environmental impacts of a proposed project is necessary; therefore, the National Environmental Policy Act Exclusions Form (Form CSREES-1234) provided in the Application Kit must be included in the proposal indicating whether the applicant is of the opinion that the project falls within one or more of the categorical exclusions. Form CSREES-1234 should follow Form CSREES-661, Application for Funding, in the proposal.

Even though a project may fall within the categorical exclusions, CSREES may determine that an EA or an EIS is necessary for an activity, if substantial controversy on environmental grounds exists or if other extraordinary conditions or circumstances are present that may cause such activity to have a significant environmental effect.

Proposal Evaluation

Priority will be given to proposals that address one or more of the commodities listed in Appendix II; however, proposals addressing commodities not included in this list will be considered. Proposals will be evaluated for relevancy (Criterion 1, 25 points) by representatives from USDA, EPA, appropriate farm and commodity organizations, and consumer groups. Methodology and scientific rigor (Criteria 2-6, 75 points) will be evaluated by panel with appropriate IPM and pesticide expertise. Panel members will include representatives with appropriate science backgrounds from land-grant universities (including IPM, IR-4, and the National Agricultural Pesticide Impact Assessment Program), USDA, EPA, and other organizations as appropriate. Funding determinations will be made by the Administrator of CSREES, in consultation with the Administrator of EPA or her designee, based on technical merit and targeted need areas.

Proposals that will only develop Crop and Pest Management Profiles (Objective 1) will be evaluated as a separate group, and will not be scored on potential to reduce reliance (Criterion 4).

The following criteria will be used in evaluating proposals:

1. Relevance to Program Objectives (25 points)
2. Importance of the Problem (Problem Statement) (15 points)
3. Appropriateness of Methods in Meeting Objectives (20 points)
4. Potential to Reduce Reliance (20 points)
5. Level of User Involvement (10 points)

6. Appropriateness of the Budget (10 points)

Confidentiality

CSREES receives grant proposals in confidence and will protect the confidentiality of their contents to the maximum extent permitted by law. Information contained in unfunded proposals will remain the property of the applicant. However, CSREES will retain one copy of all proposals received for a one year period; extra copies will be destroyed.

When a proposal results in a grant, it becomes a part of the public record, available to the public upon specific request under the Freedom of Information Act (FOIA). Information that the Secretary of Agriculture determines to be of a privileged nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as privileged should be clearly marked by the applicant with the term "confidential proprietary information."

How to Obtain Application Materials

Copies of this solicitation, the administrative provisions for the Program (7 CFR Part 3400), and the Application Kit, which contains required forms, certifications, and instructions for preparing and submitting applications for funding, may be obtained by contacting: Proposal Services Unit; Office of Extramural Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; STOP 2245; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-2245; Telephone: (202) 401-5048. When contacting the Proposal Services Unit, please indicate that you are requesting forms for the Special Research Grants Program "Pest Management Alternatives Research: Special Program Addressing Food Quality Protection Act Issues."

Application materials may also be requested via Internet by sending a message with your name, mailing address (not e-mail) and telephone number to psb@reeusda.gov that states that you wish to receive a copy of the application materials for the FY 1998 Special Research Grants Program—Pest Management Alternatives Research: Special Program Addressing Food Quality Protection Act Issues. The materials will then be mailed to you (not E-mailed) as quickly as possible.

Proposal Submission

What to Submit

An original and 20 copies of a proposal must be submitted. Each copy

must be stapled securely in the upper left-hand corner (DO NOT BIND). All copies of the proposal must be submitted in one package.

Where and When to Submit

Proposals must be received by July 20, 1998. Proposals sent by First Class mail must be sent to the following address: Special Research Grants—Pest Management Alternatives, c/o Proposal Services Unit, Office of Extramural Programs, Cooperative State Research, Education, and Extension Service U.S. Department of Agriculture, STOP 2245, 1400 Independence Avenue, S.W., Washington, D.C. 20250-2245, Telephone: (202) 401-5048.

Proposals that are delivered by express mail, a courier service, or by hand must be submitted to the following address (note that the zip code differs from that shown above): Special Research Grants—Pest Management Alternatives; c/o Proposal Services Unit; Office of Extramural Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Room 303, Aerospace Center; 901 D Street, S.W.; Washington, D.C. 20024; Telephone: (202) 401-5048.

Additional Information

For reasons set forth in the final rule-related Notice to 7 CFR Part 3015, Subpart V (48 FR 29115, June 24, 1983), this program is excluded from the scope of Executive Order No. 12372 which requires intergovernmental consultation with State and local officials. Under the provisions of the Paperwork Reduction Action of 1995 (44 U.S.C. chapter 35), the collection of information requirements contained in this Notice have been approved under OMB Document No. 0524-0022.

Done at Washington, D.C., on this 11th day of June, 1998.

Colien Hefferan,

Acting Administrator, Cooperative State Research, Education, and Extension Service.

PRIORITY LIST OF PESTICIDES

[Pesticides that will be first to undergo review of tolerances by EPA, as required by the Food Quality Protection Act of 1996]

ORGANOPHOSPHATES

Acephate—I
Azinphos-methyl—I
Bensulide—H
Chlorethoxyfos—I
Chlorpyrifos—I
Chlorpyrifos methyl—I
Coumaphos—I
DEF—Defoliant
Diazinon—I
Dichlorvos—I
Dicrotophos—I

PRIORITY LIST OF PESTICIDES— Continued

[Pesticides that will be first to undergo review of tolerances by EPA, as required by the Food Quality Protection Act of 1996]

Dimethoate—I
Disulfoton—I
Ethion—I
Ethoprop—I, N
Ethyl parathion—I
Fenamiphos—I, N
Fenitrothion—I
Fenthion—I
Fonofos—I
Isofenphos—I
Malathion—I
Methamidophos—I
Methidathion—I
Methyl parathion—I
Naled—I
Oxydemeton methyl—I
Phorate—I
Phosmet—I
Phostebupirim—I
Pirimiphos methyl—I
Profenofos—I
Propetamphos—I
Sulfotepp—I
Sulprofos—I
Temephos—I
Terbufos—I
Tetrachlorvinphos—I
Trichlorfon—I

CARBAMATES

2EEEBC—F
Aldicarb—I, N
Asulam—H
Bendiocarb—I
Benomyl—F
Carbaryl—I
Carbendazim—F
Carbofuran—I, N
Chlorpropham—H
Desmidipham—H
Fenoxycarb—I
Formetanate HC—I
Methiocarb—I
Methomyl—I
Oxamyl—I, N
Phenmedipham—H
Propamocarb hydrochloride—F
Propoxur—I
Thiodicarb—I
Thiophanate methyl—F
Troysan KK—AM, F

POTENTIAL CARCINOGENS (B1's AND B2's)

Acetochlor—H
Aciflourfen sodium—H
Alachlor—H
Amitrol—H
Cacodylic acid—H
Captan—F
Chlorothalonil—F
Creosote—wood preservative
Cyproconazole—F
Daminozide (Alar)—growth retardant
ETO—fumigant, sterilant
Fenoxycarb—IGR
Folpet—F
Formaldehyde—fumigant, germicide

PRIORITY LIST OF PESTICIDES— Continued

[Pesticides that will be first to undergo review of tolerances by EPA, as required by the Food Quality Protection Act of 1996]

Heptachlor—I
Iprodione—F
Lactofen—H
Lindane—I
Mancozeb—F
Maneb—F
Metam sodium—F, I, H, N, soil fumigant
Metiram—F
MGK repellent—repellent, synergist
Orthophenylphenol—AM, F, virucide
Oxythioquinox—I
Pentachlorophenol—F
Pronamide—H
Propargite—I
Propoxur—I
Propylene oxide—AM, I, F
Telone—N, soil fumigant
Terrazole—F
Thiodicarb—I
TPTH—F
Vinclozolin—F

AAbbreviations: AM = antimicrobial; I = insecticide; F = fungicide; IGR = insect growth regulator; H = herbicide; N = nematicide.

Appendix II

USDA and EPA have determined that production of the following commodities may depend heavily on the pesticides included on the priority list (Appendix I). The possible regulatory impacts of FQPA for these commodities are not known. To answer questions that may arise during FQPA implementation, Pest Management Profiles are critical for these commodities. Priority will be given to proposals that address one or more of the commodities on this list.

alfalfa (seed, forage)
artichoke
asparagus
avocado
barley
beans (dry, lima, snap)
beets
blackberry
blueberry
broccoli
brussels sprouts
canola
carrot
cauliflower
celery
citrus
clover seed
cole crops
collards
cranberry
cucumber
date
eggplant
endive
fig
filberts
garlic
green onions

greens
hops
kale
kiwi
lettuce
livestock
mango
melons
mint
okra
onion
ornamentals (nursery, greenhouse)
parsley
peach
peanut
pear
peas (dry, green, processed)
peppers (bell, sweet, hot)
pineapple
pistachio
potato
pumpkin
radish
spinach
squash
stonefruit
sugarbeet
sweet potato
tomato
turnip
watermelon

Appendix III

FQPA instructs USDA and EPA to obtain use and usage data for major and minor crops. Commodity and Pest Management Profiles will help USDA and EPA better understand the impacts of FQPA implementation on individual commodities by providing an overview of the production system. The crop profiles should include

typical use information (not simply what pesticide labels state) and should be presented in the following format:

[insert name of commodity(ies) and state(s)/region covered by profile here]

Production Facts: State/region ranking in the national production of the commodity; state/region contribution to total U.S. production of the commodity (percent); state/region yearly production numbers for the last 3 to 5 years (total acres grown; total acres harvested) and cash value; production costs on a yearly basis; portion of commodity for fresh market v. that for processing.

Production Regions: Define the production regions for the commodity within your state/region.

Cultural Practices: Describe the cultural practices used for producing this commodity within your state (e.g., soil types, irrigation practices, land preparation, planting times, thinning practices, etc.). Highlight intrastate or regional differences if they exist.

Pest Management

For All Pests: Identify the pests needing to be managed (diseases, insects, nematodes, vertebrates, weeds, etc.), frequency of occurrence (yearly, sporadic, weather related), the damage they do, percentage of acres infested with the pest (for each growing season or crop cycle), pest life cycles, critical timing of control measures, yield losses attributed to each pest. Note any regional differences that may occur within the state or region covered by this profile.

Chemical Controls: For each pest discussed above identify the active ingredients from Appendix I that are used to control that pest; include chemical name, trade name, formulations, percent crop treated, type of

application (aerial, ground, chemigation, banded, broadcast, in-furrow, etc.), *typical* application rates, timing (pre-plant, foliar, 5-leaf stage, etc.), *typical* number of applications per growing season or crop cycle, *typical* pre-harvest interval. Identify importance to IPM or resistance management programs. Discuss efficacy issues for each active ingredient.

Chemical and Nonchemical Alternatives: Discuss availability and efficacy issues associated with alternatives for pest/pesticide combinations discussed above. Chemical alternatives that also are priority pesticides (Appendix I) should be identified as such. Include a description of possible IPM strategies that could reduce reliance on priority pesticides identified in Appendix I.

Cultural Control Practices: Identify and discuss any cultural practices (e.g., planting dates, resistant varieties, row spacing) used to manage pests.

Biological Controls: Discuss any biological control programs that are relevant for the pest/commodity; include pheromone use if applicable.

Other issues: Discuss any export issues (international or interstate) or food processor restrictions that may limit the use of a given active ingredient, or any other relevant issues involving pesticide use on this commodity.

Key Contacts: Identify commodity experts within the state or production region by specialty.

Cite References: Identify sources of pesticide use and usage data, pest management practices, etc.

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