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FUNDING OPPORTUNITIES

Small Business Innovation Research Program - Phase II

The U.S. Department of Agriculture (USDA) invites previous Small Business Innovation Research (SBIR) Phase I awardees to apply for Phase II funding under this program solicitation. Phase II awards are only provided to those Phase I awardees that meet the eligibility requirements of a Phase II project. To be eligible for a Phase II award, an applicant must have been funded by the USDA SBIR program as a Phase I project and have not previously applied for Phase II funding under this program. Projects dealing with agriculturally related manufacturing and alternative and renewable energy technologies are encouraged across all 2015 SBIR topic areas. USDA SBIR's flexible research areas ensure innovative projects consistent with USDA's vision of a healthy and productive nation in harmony with the land, air, and water. The closing date for the grant application is February 25, 2016. For detail information about the grant application and additional information, please visit the webpage: http://nifa.usda.gov/sites/default/files/rfa/FY16%20SBIR%20Phase%20II%20RFA.pdf

2016 USDA-NIFA Biotechnology Risk Assessment Research Grants Program (BRAG)

NIFA requests applications for the Biotechnology Risk Assessment Research Grants (BRAG) Program for fiscal year (FY) 2016 to support environmental assessment research concerning the introduction of genetically engineered (GE) organisms into the environment. The anticipated appropriated amount available for NIFA to support this program in FY 2016 is approximately $4 million. The purpose of the BRAG program is to support the generation of new information that will assist Federal regulatory agencies in making science-based decisions about the effects of introducing into the environment genetically engineered organisms (GE), including plants, microorganisms (including fungi, bacteria, and viruses), arthropods, fish, birds, mammals and other animals excluding humans. Letter of Intent (LOI) should be received by February 12, 2016 and applications must be received by April 15, 2016. Please visit the webpage: http://nifa.usda.gov/sites/default/files/rfa/16_BRAG%20RFA.pdf for the grant application, guidelines, and additional information.
Beginning Farmer and Rancher Development Program (BFRDP)

NIFA requests applications for the Beginning Farmer and Rancher Development Program (BFRDP) for fiscal year (FY) 2016 to support the delivery of education, mentoring, and technical assistance programs to help beginning farmers and ranchers in the United States (U.S.) and its territories with entering, establishing, building and managing successful farm and ranch enterprises. The anticipated amount available for grants in FY 2016 is approximately $18 million. The term “farmer” is used in the broadest sense and should be interpreted to include agricultural farmers, ranchers, and non-industrial private forest owners and managers. Applications from partnerships and collaborations that are led by or include nongovernmental organizations (NGOs), community-based organizations (CBOs), and school-based agricultural educational organizations (SAEOs) with expertise in new agricultural producer training and outreach will be given priority in funding. Detail information about this grant and application procedure is available on this webpage: http://nifa.usda.gov/sites/default/files/rfa/FY16%20BFRDP%20RFA.pdf. The deadline for the grant application is January 21, 2016.

Food Insecurity Nutrition Incentive (FINI) Grant Program

NIFA requests applications for the Food Insecurity Nutrition Incentive (FINI) Grant Program for fiscal year (FY) 2016 to support projects to increase the purchase of fruits and vegetables among low-income consumers participating in the Supplemental Nutrition Assistance Program (SNAP) by providing incentives at the point of purchase. Applications are requested in each of the following three categories: (1) FINI Pilot Projects (awards not to exceed a total of $100,000 over one year); (2) Multi-year, community-based FINI Projects (awards not to exceed a total of $500,000 over no more than four years); and (3) Multi-year, FINI Large-Scale Projects (awards of $500,000 or more over no more than four years). Grantees will be expected to conduct a project assessment and to cooperate with and contribute to an independent evaluation to determine the relative effectiveness of the grant program in achieving the legislative goals of “increasing fruit and vegetable purchases” and “improving the nutrition and health status” of participating households (Food, Conservation, and Energy Act of 2008, § 4405(b)(4)(A)). The appropriated amount available for NIFA to support this program in FY 2016 is approximately $16.8 million. For additional information, please contact Jane Clary Loveless, Ph.D., RN (email: jclary@nifa.usda.gov). The deadline for the grant application is December 16, 2015. For the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for a FINI grant, please visit the webpage: http://nifa.usda.gov/sites/default/files/rfa/FY%2016%20FINI_to%20POST.pdf

Plant Feedstock Genomics for Bioenergy: A Joint Research Solicitation- USDA, DOE

The USDA’s, National Institute of Food and Agriculture (NIFA), Institute of Bioenergy, Climate, and Environment (IBCE) and the Department of Energy’s Office of Science, Office of Biological and Environmental Research (OBER) announce the interagency Program to support genomics-based research that will lead to the improved use of biomass and plant feed stocks for the production of fuels such as ethanol or renewable chemical feedstocks.

Please note that applicants will submit applications through DOE and a preapplication is requested rather than a letter of intent. To apply go to: http://science.energy.gov/~media/grants/pdf/foas/2016/SC_FOA_0001444.pdf

EPA UPDATE

Why EPA needs to hear your voice on the proposal to revoke all US tolerances for chlorpyrifos. Comment period closes January 5, 2016.

EPA seeking public comment

On November 6, 2015, EPA announced the opening of a public comment period on the Agency’s proposed rule to revoke all tolerances for chlorpyrifos. EPA has stated they will issue a final rule after considering the comments submitted during this period.

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An equal opportunity/affirmative action institution
Why is EPA proposing to revoke US chlorpyrifos tolerances and why now?
The proposal is the outcome of a recent U.S. Ninth Circuit Court of Appeals order requiring EPA to respond to a 2007 administrative petition by PANNA and National Resources Defense Council (NRDC).

The Agency completed the FIFRA Section 4 reregistration and FFDCA tolerance reassessment for chlorpyrifos in 2006, and then has continued to assess chlorpyrifos through a priority registration review, issuing a Preliminary Human Health Risk Assessment in 2011, and a Revised Human Health Risk Assessment (RHHRA) in December of 2014.

The EPA has been working through the elements of the petition as part of the registration process, and as late as March of this year (2015) indicated that once it completed its formal evaluation of chlorpyrifos as part of this process, expected to deny the activist petition in its entirety.

But, the Court order required EPA to respond before completing its formal health and safety evaluations as part of the establish registration review process. The proposed rule is based on concerns about potential exposures in drinking water based on preliminary, highly conservative modeling. EPA admits they are making this proposal before completing a more refined assessment and before fully considering and responding to comments from stakeholders submitted earlier this year.

Why does EPA need to hear your voice?

- EPA is specifically seeking comments on what tolerance or group of tolerances need to be retain by the growers and the agricultural community. If the need is not expressed now, EPA can revoke the tolerance(s) in a final ruling and chlorpyrifos would no longer be available for use on your crop.
- Commenting now is important or you lose your chance. EPA has stated that you must raise any issues now in order to then file any objections to a final rule.
- EPA has been pushed to proposing this rule without completing the established registration review process which is intended to provide a thorough, transparent and scientifically-credible assessment of risks and benefits for the pesticide tools relied on by growers.
- EPA is proposing the extreme action of revoking tolerance not in reaction to new, solid scientific information but on early-stage, theoretical modeling which is in stark disagreement with finding from real-world monitoring which show values well below regulatory standards for protection of health and safety. If allowed to be set as a precedent, many important tools relied on by growers beyond chlorpyrifos will be at risk by such an approach to regulatory decision-making.

How to submit a comment:

When submitting a comment, we recommend:

- Prepare your comment as a PDF and then simply use the upload file option on the docket site. This way you will retain a copy of your comment for future use and it is easier to load onto the site rather than to type on the site itself.
- Do not include personal information such as email addresses or phone numbers – the information you post on a docket site is publicly viewable.

The site for public comment is often extremely slow and you may encounter it being stuck “loading”. We suggest if the site does not load within a moment or two, cancel out and try again later. Off-hours are usually better if you encounter this problem.

Steps to submit your comment

1. You can go to [www.regulations.gov](http://www.regulations.gov) and type in EPA-HQ-OPP-2015-0653 and hit search or use this link to go directly to the docket:

   [www.regulations.gov](http://www.regulations.gov/#!searchResults;rpp=25;po=0;s=epa-hq-opp-2015-0653;fp=true;ns=true)
2. It will list Tolerance Revocation: Chlorpyrifos: click on Comment Now (to the right)

3. This will take you to the page for you comment
   a. In Step 1: Your Information:
      a. You are required to enter something in this comment box.
      b. If you are submitting a short comment, you can simply type in or paste in the box and include your name, title and affiliation
      c. If you will be attaching a prepared comment and your name or affiliation is already on your comment, you may simply enter something such as “Comment attached in support of chlorpyrifos”
         i. Then hit the upload file(s) link and attached your comment
   b. At the bottom of this page there is a box for I am submitting on behalf of a third party. Since this is your comment, do not check this box
   c. Click on Continue
4. You will then see the page Your Preview. Your comment and name of uploaded file will be shown.
   a. There will be a notice that your information maybe publicly viewable on the web. You must check the I read and understand the statement above box
   b. If you are ready to submit, click on Submit Comment
5. You will see Your comment was submitted successfully
   • You will be shown a receipt your Comment Tracking Number. Please copy this number for reference and follow-up in case your comment does not appear in the docket

FROM THE FIELD

Anthracnose fruit rot concerns for 2016

Phillip M. Brannen
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As mentioned in the last newsletter, one area of particular concern in 2015 was the rise of anthracnose fruit rot (Fig. 1), caused by Colletotrichum species. This fungus overwinters in dead twigs and/or dormant flower buds. Once spores are produced, they move to and germinate on the surface of green fruit; the fungus then penetrates the fruit but remains dormant until the fruit begins to ripen. Rots form as the fruit matures, and orange to salmon-colored spore masses are observe on fruit surfaces (Fig. 1). Spores produced on rotting fruit can subsequently infect surrounding fruit as well as vegetative tissues. For whatever reason, anthracnose was prevalent on numerous commodities last year. The only surprise for us in Georgia is that we rarely see this disease as a fruit rot on blueberries. Infection is most often observed when conditions are warm and wet; however, that is often the case in Georgia, and we still have not had major issues.

We may have become complacent, as a spray program for rots should have prevented this – unless fungicide resistance was an issue. In light of the fact that the disease was prevalent throughout the state (really the region) on multiple commodities, I gravitate towards an environmental explanation, as opposed to resistance development. However, Phil Harmon (University of Florida) has confirmed Colletotrichum resistance development, particularly to the strobilurin fungicides (azoxystrobin in Abound and pyraclostrobin in Pristine) in Florida within the last year or two. In addition, he indicates that some Colletotrichum species are actually killing blueberry plants; this is mainly limited to one or two varieties, but this is not something we have seen before.
If resistance is being observed, there are several concerns. First, this would indicate that some fungicides are no longer working well. This might vary from one field to the next, but the advent of resistance might indicate a general issue with particular fungicide groups or classes. Phil Harmon has graciously agreed to help us determine whether we do have resistant fungal isolates in Georgia, but we will not know this till next summer. I am therefore suggesting some modifications to our blueberry spray program – just to be on the safe side. I will discuss this program in more detail below. A second concern is that with the advent of resistance, we may actually select for anthracnose fruit rot. In other words, we might be killing out some of the competitive fungi and actually increasing anthracnose (possibly other pathogens as well) to levels which would be worse than if we did not spray a fungicide at all. This has been observed in the last 2-3 years in South Carolina peach orchards. Dr. Guido Schnabel reported that anthracnose, rarely seen on peach, actually wiped out peaches in some sites – 60-70% losses. Likewise, Alternaria fruit rot increased as a major disease, and Alternaria resistance was to blame. Obviously, we need to understand our own situation. Again, we don’t know that we have resistance to the anthracnose fungus (or possibly multiple fungi), but it would be prudent to assume that we may.

We definitely need to consider fungicides with anthracnose activity as we are developing our spray programs for 2016. The following materials should have some degree of activity against Colletotrichum species found on blueberry. Bloom and early cover sprays are thought to be particularly important for management of this disease, but infections can occur later in the season as well.

Abound; group 11 (possible resistance)
Capta; group M4 (Capta + phosphonates have been particularly effective for controlling Colletotrichum diseases on apples, but data is not available on blueberry.)
Captivate; group 17 + M4
Omega 500; group 29
Orbit; group 3
Phosphonates (Prophyt, etc); group 33
Pristine; group 7 + 1 (possible resistance)
Quash; group 3
Sulforix (late dormant application; same as for Exobasidium)
Switch; group 9 + 12

The blueberry disease management program below (Fig. 2) is a modification of the Exobasidium program I sent out in the last newsletter. Capta is actually pretty efficacious on Colletotrichum species, and until we know the resistance status of the strobilurin fungicides, I would consider tank-mixing Capta with Pristine or Abound to provide insurance and additional efficacy. As you approach harvest, visual Capta residues might be an issue, so it might not fit well in the latter part of the season just prior to harvest. In the chart below (Fig. 2), I have moved Switch to an earlier application window than presented in previous versions, as at least one of the fungicidal compounds in Switch is likely to be active (does not readily develop resistance). This program does take into account resistance management, while also providing efficacious materials at the time they would be needed. However, feel free to mix and match fungicides on your own, as long as they provide the needed efficacy against given pathogens at specific growth stages. See the IPM guide at www.smallfruits.org to help you in developing your spray programs. Also, timely, frequent harvest (no soft fruit) and rapid cooling will help to prevent post-harvest rots. As always, contact your local county agent if you have questions.

Figure 1. Anthracnose fruit rot of blueberry. This disease was more prevalent than normal in 2016. Efficacious, preventative fungicidal spray programs are required to control this disease.
Figure 2. A suggested spray program for management of blueberry diseases after the introduction of Exobasidium leaf and fruit spot and potentially-resistant *Colletotricum* species (anthracnose).

FRIENDS OF SOUTHERN IPM AWARDS

The Friends of Southern IPM Awards program recognizes extraordinary achievement in research, Extension and implementation of Integrated Pest Management (IPM) in the southern region of the United States. Winners are chosen by two separate award panels, one for the regular awards, and one for the graduate student awards.

Call for Nominations is OPEN. Deadline for nominations is Friday, December 18, 2014.

Nominate a graduate student (Masters or Ph.D.) or a colleague for one of our friends of IPM Awards. Award categories consist of the following:

Graduate Student awards:
Masters or Ph.D. student. Each department may nominate one candidate for masters and one for Ph.D. Masters award is $2,000 and Ph.D. award is $3,000, in addition to a presentation in a venue of the winner's choice.

Professional awards:
* Bright Idea: Innovative technology or research project
* IPM Educator: Excellence in teaching or Extension education also can be involved in public school system.
* IPM Implementer: "Boots on the ground" person who implements IPM.
* Future Leader: Promising faculty member early in his or her career.
* Pulling together: Team award.
* Lifetime Achievement: Faculty member or any individual from a category above who is nearing the end of a career.

Nomination needs to include the following: a nomination form and 2-page max essay about the nominee's qualifications for the award. Further information is available at Southern IPM Center website (http://www.sripmc.org/friendsofipm/). If you have specific questions about the Friends of IPM Award or the nomination, contact Rosemary Hallberg at 919-513-8182 or Henry Fadamiro at 334-844-5098.

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UPCOMING EVENTS

January 6, 2016 Georgia Blueberry Growers Annual Meeting
Meeting will be located in Alma GA.

January 7-10, 2016 Southeast Regional Fruit & Vegetable
Meeting will be located in Savannah GA

Dear Readers:
UGA Integrated Pest Management Newsletter is a monthly journal for Researchers, Extension agents, Extension specialists, and others interested in pest management. It provides most updated information on legislation, regulations, and other issues concerning pest management in Georgia.

Do not regard the information in this newsletter as pest management recommendations. Consult the Georgia Pest Management Handbook and other Extension publications, or appropriate specialists for additional information.

Your input in this newsletter is encouraged. If you wish to be added to the mailing list, just call us at 706-542-1320.
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