



ACPA Newsletter

2016

Volume 40 Number 1

Using Section 18 and 24c Registrations in Arkansas Agriculture

By: Brandi Reynolds, Ag Program Manager, Pesticide Division, Arkansas State Plant Board

Arkansas growers often encounter pest situations where currently registered pesticides are not available to meet their needs of control. In these situations, the Arkansas State Plant Board can petition for two types of special registrations.

Section 18 of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) allows States to use a pesticide for an unregistered use to control a pest, if it is determined that an emergency condition exists. These Emergency Exemptions are designed to provide temporary relief for farmers and growers that encounter a pest that cannot be controlled by pesticides currently registered for that crop. There are four types of Emergency Exemptions. The most common type is a specific exemption. This exemption is requested when an emergency condition exists in order to avert a significant economic loss or a significant risk to endangered or threatened species, beneficial organisms, or the environment. The other less common exemptions are Quarantine and Public Health. The process begins when the University of

Arkansas expert notifies the Plant Board staff of the emergency situation. With the support of the manufacturer, a Section 18 Application is submitted in support of the request. Upon Governor approval, the Plant Board submits a request for an exemption to the Environmental Protection Agency; it can take up to two months for a multi-disciplinary evaluation to be conducted to determine if the situation meets the criteria for an emergency. If approved, these emergency exemptions may be authorized for up to one year. The fourth emergency exemption is a Crisis Exemption. This exemption is requested when there is an immediate need for one of the previous exemptions. A Crisis exemption is only authorized for 15 days and should be used as a last resort.

Another mechanism is a Section 24c registration, also known as a Special Local Needs (SLN) registration. Under the authority of §24(c) of FIFRA, states may register an additional use of a federally registered pesticide product or a new end use product to meet special local needs. Sec-



Emerging pests in crops often need a section 18 or 24c registration to aid in management strategies.

tion 24c requests are submitted to the Plant Board by the manufacturer of the pesticide with the support of the University of Arkansas Cooperative Extension experts. SLN registrations are reviewed by the EPA for approval. These registrations are active for one to five years, and can be extended if the need still exists.

Kyle Colwell Coordinating ACMC Program

Kyle Colwell will be coordinating the ACMC program for 2017. Kyle will be searching for ideas to address this year and will work with the Program Committee that consists of membership from the participating organizations. These include ACPA,

Consultants Associations, Certified Crop Advisors, and the APFA. If you have ideas please inform a member of the committee or email Kyle. The meeting last year was outstanding and featured talks by the FBI plus other timely topics from Indus-

try and University speakers. The program will most likely end around 3pm on Thursday. The Program Committee is tentatively scheduled to meet August 11, 2016.

Inside this issue:

<i>Soybean Corn Earworm Threshold Changes</i>	2
<i>ACPA Officers and Directors for 2016</i>	3
<i>Election results for ACPA Elections</i>	3
<i>ACPA Events and Dicamba Guidelines</i>	4

Special points of interest:

- University of Arkansas Soybean College training session, August 18, limited online registration only, educational credits available. Check ACPA website for more information coming soon.
- Dicamba usage guidelines: <http://plantboard.arkansas.gov/Pages/default.aspx>
- Arkansas Crop Management conference date: January 17-19, 2017.
- ACPA Research Conference: November 29-30, 2016, starts on a Tuesday this year.



DETERMINATION OF A THRESHOLD FOR CORN EARWORM IN SOYBEAN

By: Dr. Gus Lorenz, University of Arkansas Extension Entomologist

From 2010-2014, Dr. Gus Lorenz, University of Arkansas Entomologist, conducted studies to determine at what point corn earworm (CEW) populations are causing economic damage to soybean and to determine the loss in yield associated with CEW populations in soybean. These studies were in cooperation with our neighboring state of Mississippi. After determining loss associated to different population levels of CEW, a threshold was developed for growers and decision makers on when insecticide applications for control of CEW are justified to maintain maximum profit for soybean producers. Field cage studies were conducted using an indeterminate maturity group 4.6 soybean variety. Plots, except the non-infested control plots, were infested with approximately 10 pair of corn earworm pupae just prior to the R1-R2 stage. Adults were removed at 5, 7, 9 and

11 days after emergence to give a range of larval densities. Larvae were then sampled at ten days after the final adult removal with a drop cloth. This sample represents a total damage measurement for the cohort of larvae. After the final density sample was recorded, total pods and damaged pods were counted on 2.5 row feet. Yield measurements were recorded at the end of the growing season. A significant relationship between pod damage and yield was observed. Based on the regression equation for every corn earworm damaged pod, yield was reduced by 0.04 bu/ac. A significant relationship between larval density and yield was also observed. Based on the regression equation for every corn earworm larvae present per 2.5 row feet, yield was reduced by 1.3 bu/ac. Additional studies were conducted to improve robustness of the data. The data was used to

construct a dynamic model on threshold taking into account CEW levels, cost of control and impact on yield which will aid growers and decision-makers on the value of control. (Fig. 1 and Table 1). After several years of work and collaboration with counterparts in Mississippi, Louisiana, and Tennessee, we have finally achieved our goal to develop a threshold for corn earworm in soybean that takes into account not only the number of corn earworms found, but includes the cost of control as well as value of the crop in making a determination on when to spray an insecticide for control of corn earworm in soybean. This dynamic threshold should better enable growers and other decision-makers to determine when an insecticide application is needed and help maximize return on investment.

New Dynamic Threshold for CEW in Soybean in Arkansas

Crop value (\$/bu)	Larvae/25 sweeps						
	8	10	12	14	16	18	20
6	6.5	8.2	9.8	11.4	13.1	14.7	16.3
7	5.6	7.0	8.4	9.8	11.2	12.6	14.0
8	5.0	6.1	7.4	8.6	9.8	11.0	12.3
9	5.0	5.4	6.5	7.6	8.7	9.8	10.9
10	5.0	5.0	5.9	6.9	7.8	8.8	9.8
12	5.0	5.0	5.0	5.7	6.5	7.4	8.2
13	5.0	5.0	5.0	5.3	6.0	6.8	7.5
15	5.0	5.0	5.0	5.0	5.2	5.9	6.5

Assumes 90% control with application and basement threshold of 5/25

Figure 1. Threshold for Corn Ear Worm with a sweep net.



Crop value (\$/bu)	Larvae/row foot						
	8	10	12	14	16	18	20
6	0.9	1.1	1.3	1.5	1.7	2.0	2.2
7	0.7	0.9	1.1	1.3	1.5	1.7	1.9
8	0.7	0.8	1.0	1.1	1.3	1.5	1.6
9	0.6	0.7	0.9	1.0	1.2	1.3	1.4
10	0.5	0.7	0.8	0.9	1.0	1.2	1.3
12	0.4	0.5	0.7	0.8	0.9	1.0	1.1
13	0.4	0.5	0.6	0.7	0.8	0.9	1.0
15	0.3	0.4	0.5	0.6	0.7	0.8	0.9

Table 1. Threshold for corn earworm with a shake sheet. *(assuming 90% control, no basement)





Arkansas Crop Protection Association Officers and Directors for 2016

<p>President Chuck Ligon DuPont Pioneer</p>	<p>Director, Agri-Business Mark Stratton Stratton Seed</p>
<p>President Elect Kyle Colwell Dow AgroSciences</p>	<p>Director, Industry John Schultz BASF</p>
<p>Vice-President Dr. Jarrod Hardke University of Arkansas Division of Agriculture</p>	<p>Director, Agri-Business Brad Koen BASF</p>
<p>Secretary Dr. Jeremy Ross University of Arkansas Division of Agriculture</p>	<p>Director, Academia Dr. Terry Spurlock University of Arkansas Division of Agriculture</p>
<p>Treasurer Dr. Jason Kelley University of Arkansas Division of Agriculture</p>	<p>Ex-Officio Board Member ACPA, Executive Director Dr. Donald R. Johnson</p>
<p>Arkansas State Plant Board Representative Otis Howe DuPont Pioneer</p>	<p>Constitution Committee Dr. William Johnson DuPont Pioneer</p>
<p>Past President Dr. Tom Barber University of Arkansas</p>	<p>Ex-Officio Board Member Arkansas Farm Bureau</p>
<p>Director, Academia Chris Grimes University of Arkansas Division of Agriculture</p>	<p>Ex-Officio Board Member Arkansas State Plant Board Susie Nichols</p>
<p>Director, Industry Craig Shelton Bayer Crop Science</p>	<p>Ex-Officio Board Member University of Arkansas Division of Agriculture Ples Spradley</p>

Arkansas Crop Protection Association Elects Officers at the Annual Meeting.

Election of officers for ACPA was conducted at the annual meeting held in conjunction with the Arkansas Crop Management Conference January 19-21, 2016. Officers elected this year were President Elect Chuck Ligon moving to position of President. Chuck works with Pioneer Seeds and has been active on ACPA board and the Silent Auction fund raiser. He served as Program Chairman of ACMC this

past year. Kyle Colwell is President Elect and ACMC program chair for 2015-16. He currently works for Dow AgroSciences, serves on the ACPA board and on the Sustaining Membership Committee. Dr. Jarrod Hardke will continue as Vice President. The Vice President also serves as Chairman of the Arkansas Crop Protection Association Research Conference in Fayetteville each

year. John Schultz with BASF and Craig Shelton with Bayer were elected as board members serving in the Industry Board Positions. Chris Grimes was elected to continue in the Academia Board Position, and he serves on the local arrangements committee in charge of moderators and projectors at the ACMC. Chris also accepted assignment on the scholarship committee.



Kyle Colwell is President Elect and Chairman of ACMC Program



Chuck Ligon is President of ACPA for 2017.

We're on the web:
acpanews.com

Arkansas Crop Protection Association Upcoming Events and Dicamba Regulations Link

Arkansas Crop Management Conference is scheduled for January 17-19, 2017. The program for 2016 was a great success with a total of 475 registered attendees. The meeting was extremely informative with a highlight featuring the FBI discussing Ag Terrorism. The discussion featured some live demonstrations and discussions on how attendees could be alert to signs of Ag Terrorism.

The Arkansas Crop Protection Association will host its annual research conference November 29-30, 2016, in Fayetteville, AR. The conference will be held at the Hilton Garden Inn, 1325 N. Palak Dr., Fayetteville, AR 72704. Phone 479-856-6040 for reservations. Conference highlights will include a student paper

competition with cash prizes awarded to the top presentations in both Ph.D. and Master's divisions. Researchers from research, extension, and industry are encouraged to attend and participate by making presentations. The meeting this year will contain informative research talks by UA students and invited industry discussions on topics of interest. Continuing education credits will also be available. The conference will begin on Tuesday after Thanksgiving. This is a change from last year when the meeting started on Monday. The meeting will be an opportunity to obtain last minute educational credits if needed.

The Arkansas State Plant Board's Full Board adopted, by emergency rule, a new regulation on

pesticides that contain the active ingredient Dicamba. The emergency rule can be found on the Plant Board's web page <http://plantboard.arkansas.gov/Pages/default.aspx> under Hot Topics, EMERGENCY RULE DICAMBA. The emergency rule went into effect April 2, 2016. If you have any questions, feel free to contact the Arkansas State Plant Board at 501-225-1598.



Wes Ward, Arkansas Secretary of Agriculture, discussed the future of Arkansas Agriculture at the Arkansas Crop Management Conference luncheon.