Arkansas Rice Update

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DIVISION OF AGRICULTURE RESEARCH & EXTENSION University of Arkansas System

Combining Insecticide Seed Treatments for Rice

We are getting a lot of calls on "overlaying" another insecticide seed treatment on top of seed already treated with an insecticide seed treatment. Obviously, this comes at an additional cost to the grower and there needs to be research to support that the added cost provides an additional benefit to the grower.

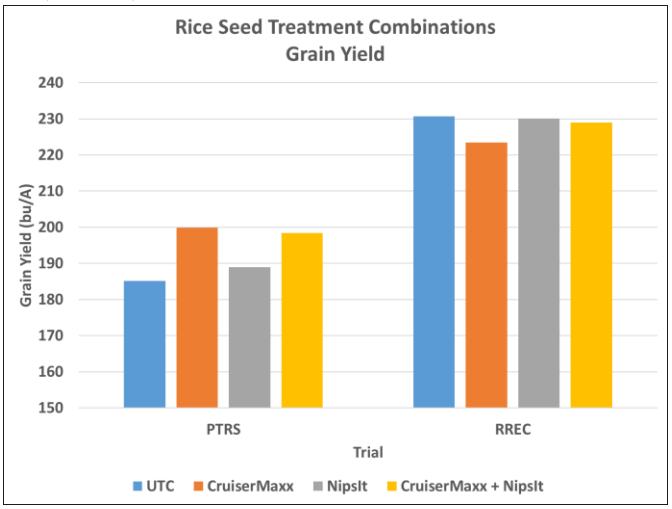
In our studies, when we compare the neonicotinoid seed treatments CruiserMaxx Rice and NipsIt INSIDE to one another, we have observed very little difference in efficacy. In other words, they both perform equally well on their own, particularly on grape colaspis. They provide control for rice water weevil too, but both do not provide control equal to that of Dermacor. However, Dermacor does not provide adequate control of grape colaspis.

Another thing to remember is that CruiserMaxx and NipsIt provide protection of the rice for about 28-35 days. Dermacor, on the other hand, provides protection for 60-70 days after planting or more. Another difference is that CruiserMaxx and NipsIt provide protection against chinch bugs and aphids while Dermacor provides protection against caterpillar pests such as fall armyworm and rice stem borer.

With growers planting earlier, and as a result, growth being slow from cool temperatures, we see the permanent flood going on later, often as many as 30-50 days after planting. By the time rice water weevils hit the field, the residual control of CruiserMaxx and NipsIt is gone and little or no control for rice water weevil is observed, as should be expected.

We have spent the last few years looking at combining insecticide treatments to enhance control of grape colaspis and rice water weevil. In rare cases, we have seen some benefit to putting both CruiserMaxx and NipsIt on the seed to improve control, but the data is extremely limited. In most cases we do not see a benefit to this combination. If you think about it, it just makes sense. Both provide control of the same pests at about the same level and the residual control is essentially the same. The data in **Figure 1** shows some of these results and they are inconclusive at this time.

Fig. 1. 2017 Rice Insecticide Seed Treatment Studies from Pine Tree (PTRS) and Stuttgart (RREC).



Adding Dermacor to CruiserMaxx or NipsIt appears to give us early season control of grape colaspis and the longer season control for rice water weevil, particularly when we go to permanent flood at 5 weeks or more after planting. The data is still insufficient to recommend this practice, but this approach looks like it could one day be very promising for growers that have both grape colaspis and rice water weevil. Again, we are working hard to come up with the best solutions that will give the best return on investment for our growers.

The purpose of our studies exploring these combinations of insecticide seed treatments was to obtain excellent control of both grape colaspis and rice water weevil – something that the current products do not achieve when used

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alone. There is a lot of rice grown in NE Arkansas and SE Arkansas and on clay soils where grape colaspis is not an issue, so the value of this approach of mixing insecticide seed treatments, particularly overlaying neonicotinoids, is probably not going to be beneficial to those growers.

The up-front cost of production in rice is daunting to say the least and we need to choose the inputs that will give a return on investment for our rice growers. Think before you spend an extra $6-12 per acre on a product that may or may not give you a return on investment.

At this time, there is simply not enough research data to support the idea that combining or overlaying insecticide seed treatments is worth the money.

Enterprise Budgets and 2018 Rice Farming for Profit Updated

Updates have been made to correct the Crop Enterprise Budgets for rice, resulting in the need to make changes to overall production costs in the 2018 Rice Farming for Profit Total Net Return table included below. The full file is available here: 2018 Rice Farming for Profit.

As always, it is highly recommended to relate the production costs listed to those on your own farm / fields to more accurately gauge potential economic returns for your operation. Adding any net return back to the production cost for that cultivar will give the total revenue – then you can subtract your production costs to better represent potential net return for your operation.

Total Net Return based on ARPT and PREP grain yield and milling yield results, 2015-2017, and production costs from Enterprise Budgets.

Cultivar	Grain Type	Avg Grain Yield	Avg Milling Yield	Production Cost†	Net Return ($ per Acre)‡			
					2015	2016	2017	MEAN
CL151	L	183	58-70	$ 715.60	$ 221.62	$ 246.47	$ 354.33	$ 274.14
CL153	L	181	60-70	$ 715.60	$ 212.17	$ 266.09	$ 337.89	$ 272.05
CL172	L	173	59-70	$ 715.60	$ 121.27	$ 229.67	$ 307.32	$ 219.42
Diamond	L	200	57-69	$ 683.31	$ 355.17	$ 374.45	$ 440.01	$ 389.88
LaKast	L	189	56-70	$ 683.31	$ 298.89	$ 297.64	$ 399.70	$ 332.08
Roy J	L	186	58-70	$ 683.31	$ 265.83	$ 326.73	$ 382.14	$ 324.90
RT 7311 CL	L	223	52-69	$ 792.98	—	$ 356.46	$ 425.97	$ 391.21
RT CLXL745	L	204	54-70	$ 792.98	$ 290.88	$ 272.50	$ 333.26	$ 298.88
RT Gemini 214 CL	L	223	54-69	$ 792.98	—	$ 411.48	$ 380.48	$ 395.98
RT XP753	L	230	51-69	$ 764.09	$ 430.67	$ 465.69	$ 472.62	$ 456.33
RT XP760	L	216	56-69	$ 764.09	$ 377.74	$ 383.42	$ 416.09	$ 392.42
Jupiter	M	189	59-69	$ 683.31	$ 215.46	$ 351.17	$ 440.00	$ 335.54
Titan	M	199	53-68	$ 683.31	$ 244.75	$ 390.74	$ 466.36	$ 367.28

† Production cost based on Total Specified Expenses in 2018 Crop Enterprise Budgets for Arkansas Field Crops Planted in 2018.

‡ Numbers based on current cash bid price minus basis of $5.37 per bushel and corrected for milling yield based on long grain loan prices of $4.50 for whole kernel and $3.13 for broken and medium grain loan prices of $4.27 for whole kernel and $3.13 for broken.

GMO Rice Seed Testing for 2018

Please follow these links for information from the Arkansas State Plant Board on GMO rice testing for seed from the 2017 harvest for the 2018 planting season. Contact ASPB if you have any questions.

Link: Letter and Testing Labs

Link: Process Summary

Additional Information

Arkansas Rice Updates are published periodically to provide timely information and recommendations for rice production in Arkansas. If you would like to be added to this email list, please send your request to rice@uaex.edu.

This information will also be posted to the Arkansas Row Crops blog (http://www.arkansas-crops.com/) where additional information from Extension specialists can be found.

More information on rice production, including access to all publications and reports, can be found at http://www.uaex.edu/rice.

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