



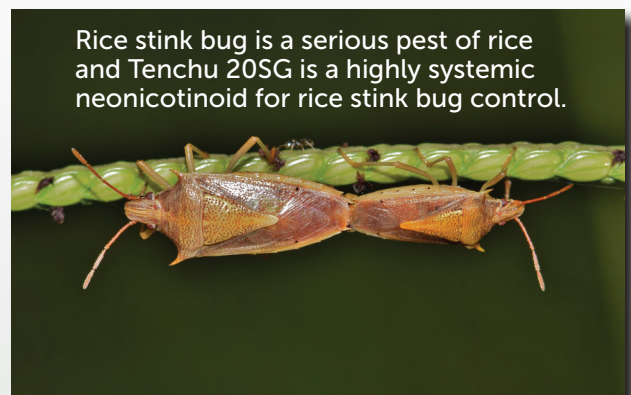
## Longer Residual, More Consistent Control Than Pyrethroids

### Tenchu® 20SG a Highly Systemic Neonicotinoid for Rice Stink Bug Control

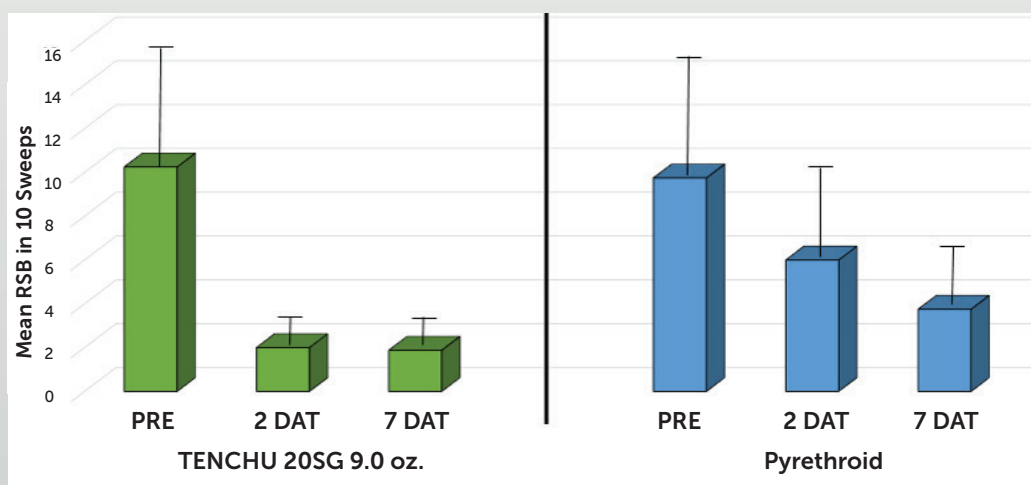
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Tenchu 20SG is a highly systemic neonicotinoid for rice stink bug control. It provides rapid kill like a pyrethroid, but longer residual control. "As with most neonicotinoids, it causes antifeeding even at sublethal doses which extends protection to prevent pecky rice."

Pyrethroid resistance is a serious problem in Texas rice production. Dr. M.O. Way (Texas A&M) reports that the typical spray program now is Tenchu at heading/milk plus a pyrethroid late but some farmers get by with one application of Tenchu. He reports testimonials from crop consultants: "Tenchu has solved my RSB problems; Tenchu has cut down my RSB sampling."



See chart below of data from 11 LSU grower demo trials over 3 years across the Louisiana rice production areas. *Control with Tenchu is very consistent*, as evidenced by the error bars.



Tenchu Rice Stink Bug Control;  
Summary of 11 LSU Grower Trials Conducted in 5 LA Parishes.

- Only the Tenchu treated fields remained below action threshold.
- At one of the sites, a retreatment of Pyrethroid was required to keep RSB population below threshold but adjacent field treated with Tenchu remained below threshold. This trial site was not included in the summary here.
- *Tenchu provided more consistent control.*

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## APPLICATION FORGIVENESS AND EFFICIENCY

Because Tenchu is so highly systemic it allows for "application forgiveness and efficiency".

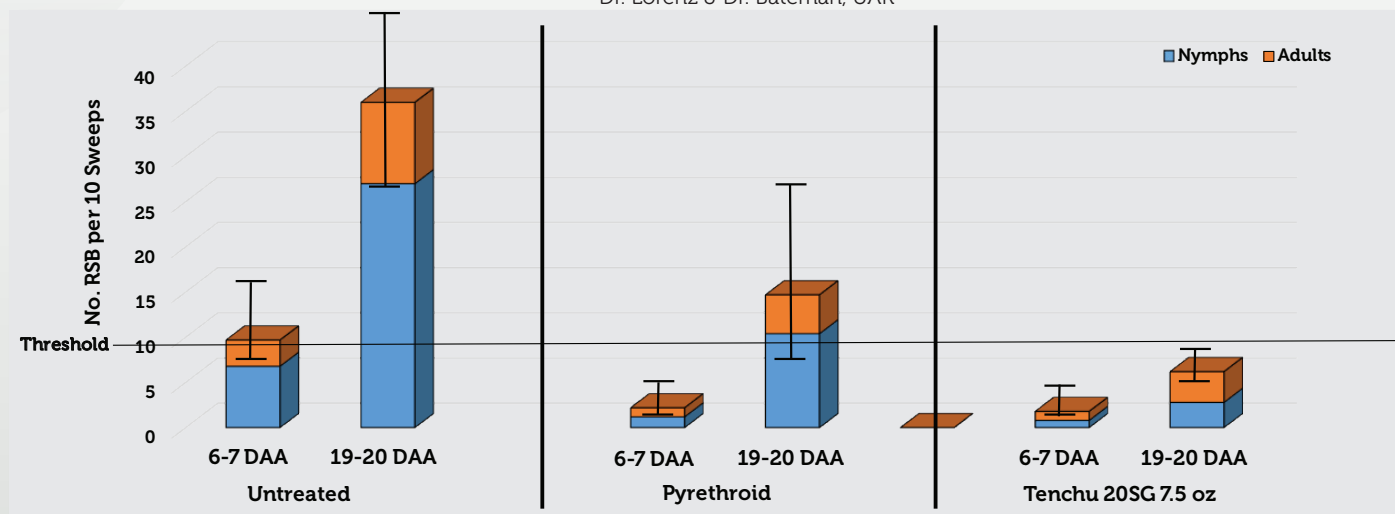
**Forgiveness:** In the absence of insecticide resistance, data from small-plot university studies often show great performance for the pyrethroids. Treatments are often applied by ground at 10 GPA of water giving great coverage and subsequent great control. What happens when you apply contact insecticides such as pyrethroids by aerial application at only 2.5 GPA of water at 30 ft high, 125 mph, 90F; much fewer droplets actually hit the rice foliage. Coverage is sacrificed impacting efficiency of a contact product. Under these same conditions, Tenchu hits the leaf surface then quickly redistributes itself throughout the entire plant; even to the feeding points and within the canopy where RSB like to hide during the day.

**EFFICIENCY:** Because of the coverage issue, it is recommended to apply pyrethroids in a minimum of 5 PGA water by air. Tenchu has been commercially applied for years with success at only 2.5-3 GPA. This allows for 67% more acres to be treated to save time and money. Pilots can spend less time on the tarmac loading product and is especially important when RSB are in the field when a 2-day storm event is on the way.

## RESIDUAL ACTIVITY

Observations from commercial use and university field trials have proven that Tenchu gives much longer control than pyrethroids. A summary of results from 3 University of Arkansas trials conducted in 2018 clearly shows that Tenchu's residual prevented development of nymphs and kept RSB levels below treatment threshold 3 weeks after application whereas the pyrethroids did not (see chart below).

**TENCHU Rice Stink Bug Control**  
Summary of 3 Small-plot Trials Conducted in 2018  
Dr. Lorenz & Dr. Bateman, UAR



Pyrethroids tested were Mustang Maxx 4.0 oz & Lambda-Cy 3.65 oz

**Peace of Mind:** From a consultant's standpoint, Tenchu can provide peace of mind knowing his/her recommendation for which product to apply was the correct one. Often consultants are in the field on a 7 day schedule to evaluate performance. The data from page one clearly shows that results can vary highly for the predominant pyrethroids. Pyrethroids often did not control RSB well at 2 days after application but how do you know that unless you are sampling less than 7 days? Tenchu does not fail but you have the possibility for a failure with a pyrethroid.

*The University of Arkansas has evaluated Tenchu extensively and it's in the 2019 MP-144 pg. 96.*

**Application Flexibility:** Tenchu has been used commercially for a number of years in TX/S. LA due to resistance issues as well as safety to adjacent aquatic habitats. The potential for disruption to an aquatic habitat is far less with Tenchu than pyrethroids. If you have a big rain event or a hurricane event coming, you can't apply a pyrethroid if you need to release flood water within 7 days of application due to fear of killing aquatic organisms. Tenchu does not have a release period restriction because it's systemic and the product rapidly moves within the plant after application rendering it unavailable for wash-off.

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