

## **TRICAL® Forage Triticale for Areas Affected by Karnal Bunt**

**TRICAL® forage triticale can help producers in Texas and other areas affected by karnal bunt respond problem in two ways.**

First, the karnal bunt problem increases the importance of graze-out programs as an alternative to harvesting wheat grain. Triticale typically extends the grazing season and provides over 20% more forage production than wheat for grazing stocker cattle.

Second, most triticale varieties that have been tested are resistant to karnal bunt. Although the levels of resistance of varieties available in the U.S. have not been determined because of restrictions on karnal bunt testing in the U.S., numerous research studies in Mexico and India have shown that triticales "generally exhibit high levels of resistance to KB (karnal bunt)" (Gaudet et al., Canadian Journal of Plant Science, 2001, 81: 503-508. e-mail of lead researcher: gaudetd@em.agr.ca).

**Now that triticale used for graze-out receives the same loan deficiency payment (LDP) as wheat, the advantages of using triticale instead of wheat for grazing programs are even greater.**

### **Excerpts from Research Publications about Resistance in Triticale to Karnal Bunt (KB)**

triticales "generally exhibit high levels of resistance to KB"

Gaudet, D.A., Fuentes-Davila, G., Burnett, P.A., and De Pauw, R.M. 2001. Reactions of western Canadian spring wheat and triticale varieties to *Tilletia indica*, the causal agent of Karnal bunt. Canadian Journal of Plant Science. 81: 503-508.

"Maximum Karnal bunt resistance was observed in triticale . . ."

Singh, R., Chawla, P., and Beniwal, M.S. 2001. Comparison of different methods of inoculation and evaluation of wheat material against *Neovossia indica*. Crop Research (Hisar). 21(1)105-108.

"Advanced lines of bread wheat, durum wheat, and triticale . . .were evaluated for resistance . . . Mean percentage infection in the susceptible control was 46.8%. The frequency of lines with infection percentage below 5% was 100% in durum wheat and triticale . . ."

Fuentes-Davila, G., Rajaram, S., Van-Ginkel, M., Rodriguez-Ramos, R., Abdalla, O., Mujeeb-Kazi, A., and Pfeiffer, W. H.. 1994. Results of inoculations of the 6<sup>th</sup> Screening

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Nursery for resistance to *Tilletia indica* Mitra. *Revista Mexicana de Fitopatologia*. 12(1)21-25.

4000 bread wheats, durum wheats, and triticale lines were screened for resistance to *Neovossia YTilletia*” *indica* under natural conditions and boot inoculation in the Karnal bunt screening nursery (KBSN) in Mexico. The proportion of resistant lines was highest in triticale . . .”

Singh, D. V., and Dhaliwal, H.S.. 1989. Screening of wheat germplasm for components of resistance to Karnal bunt disease. *Indian Phytopathology*. 42(3)393-399.