

## What is triticale (*trit-ah-kay-lee*)?

Triticale is a close relative of both durum wheat and common wheat that results from pollinating durum wheat with rye pollen, then using that cross in a breeding program to produce stable, self-replicating varieties. Crosses between wheat and rye also occasionally occur in nature, and in very rare instances create viable plants. Once bred, triticale will not revert back or “break down” to produce rye or durum wheat plants, just as common wheat will not revert back to its progenitors.

Durum wheat, common wheat, and triticale have four sets of chromosomes in common (Table 1). Common wheat and triticale both have two additional sets of chromosomes, and as a result are more easily intercrossed than durum and common wheat. Through forty years of triticale breeding and the intercrossing of triticale and common wheat, modern varieties of triticale have become more similar to common wheat. The seed and plants of some modern varieties of triticale can be very difficult to distinguish from those of hard red or soft red wheat. Still, triticale typically is superior to all classes of wheat for pasture, silage, hay, and for grain used for feed and some specialty uses, and inferior to common breadwheat for highly mechanized breadmaking and to durum wheat for pasta.

**Table 1.** Genetic Relationship of Durum Wheat, Common Wheat, and Triticale

	Origin and Structure of Genetic Makeup			
	Einkorn (AA)	Aegilops speltoides (BB)	Aegilops squarrosa (DD)	Rye (RR)
Durum Wheat	AA	BB		
Common Wheat	AA	BB	DD	
Triticale	AA	BB		RR