



Cornell University

'Crimson Giant': A New Late Season Primocane Raspberry

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'Crimson Giant' is a new primocane fruiting red raspberry developed for late season production in upstate New York utilizing high tunnel production practices. It was selected in 1999 from a population of 'Titan' x NY950 (floricane x primocane). It ripens in late September through October or later in western New York, USA with favorable weather conditions, making the harvest up to 3 weeks past 'Heritage'. The fruit is very large, averaging 4.5g in the New York trial. 'Crimson Giant' is characterized by sturdy upright canes growing primarily in a crown formation, very large conical fruit that is longer than broad, very late primocane production and bright red fruit color. Commercial production has begun in southern Europe and Morocco for winter production. Fruit size in trials at these locations exceeds that observed in New York with shelf life exceeding 10 days when picked at the early ripening stage. 'Crimson Giant' has the ability to be picked at the blushed white stage and with full color development during storage though better flavor development occurs when picked later. Yield is comparable to those observed in 'Himbo Top' and 'Polka' with better fruit quality and 40-50% larger fruit than those varieties. An early planting date is critical for adequate flower development and fruit production for winter production.



Figure 2: Fruit harvested December 17, 2010 near Rabat, Morocco.



Figure 1: Typical fruiting habit of 'Crimson Giant' in New York (inset) and Morocco.

'Crimson Giant' originated from a hand-pollinated cross of the patented variety 'Titan' (U.S. plant patent #5,404-Raspberry plant named N.Y.883) and Cornell selection NY950 (unpatented) grown at Cornell University's New York State Agricultural Experiment Station in Geneva, NY. 'Crimson Giant' produces large, firm fruit with a firm texture and bright red coloration that does not darken significantly in storage. It produces strong, upright canes primarily in a crown. This is well suited for production in high tunnels and for off-season production since excessive cane production is not a problem. The canes of developing primocanes exhibit strong red/magenta coloration similar to that of Heritage but generally lighter red. The newly emerging leaves are light green with a light margin of pigmentation that dissipates as the leaves mature. 'Crimson Giant' easily releases its fruit for hand picking for fresh market sales. The canes produce short, stout spines that are relatively sparse in the fruiting region. Fruiting laterals of 'Crimson Giant' are relatively short and concentrated on the top 14 to 20 nodes.

'Crimson Giant' is recommended for season extension in the autumn in cooler climates utilizing high tunnels or other protective structures and for off-season winter production in warm climate locations. It is not recommended for unprotected outdoor production in most cool climate conditions such as those found in western NY, USA due to frost potential during harvest. For information on licensing opportunities, contact Jessica Lyga at the Center for Technology Licensing at Cornell University (CTL) at jml73@cornell.edu.

Table 1: Yield and fruit weight of Crimson Giant winter production in 2010-2011 near Rabat, Morocco.

Cultivar	Mean Yield	Mean Fruit Weight
'Crimson Giant'	7 t/ha (April planting)	5.3 g
	5 t/ha (May planting)	
'Himbo Top'	8 t/ha (April planting)	3.4 g
	6 t/ha (May planting)	
'Polka'	8 t/ha (April planting)	3.7 g
	6 t/ha (May planting)	