

Organic potato variety trials

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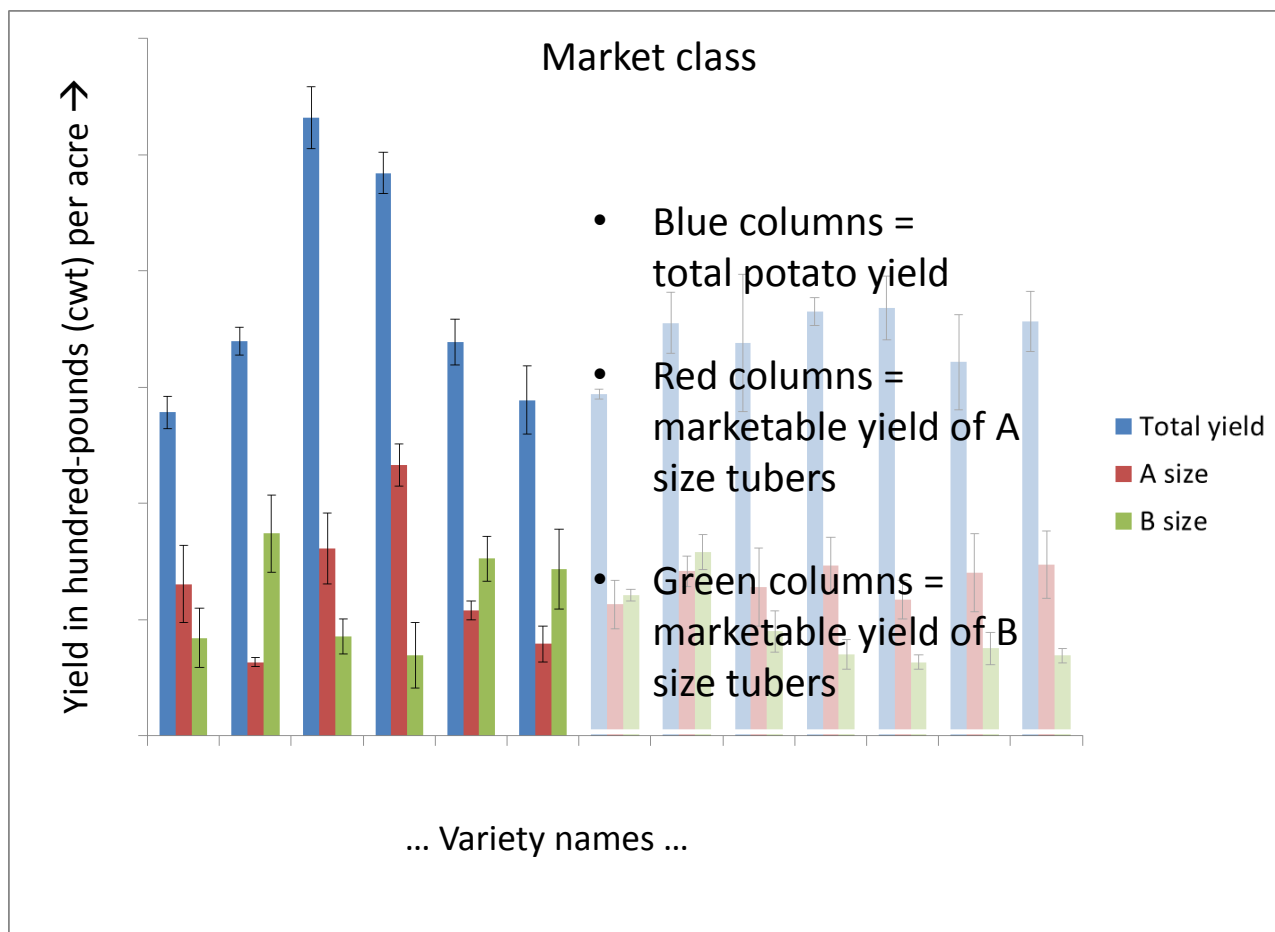
Website: organicpotato.wisc.edu

Facebook: Organic Potato Project

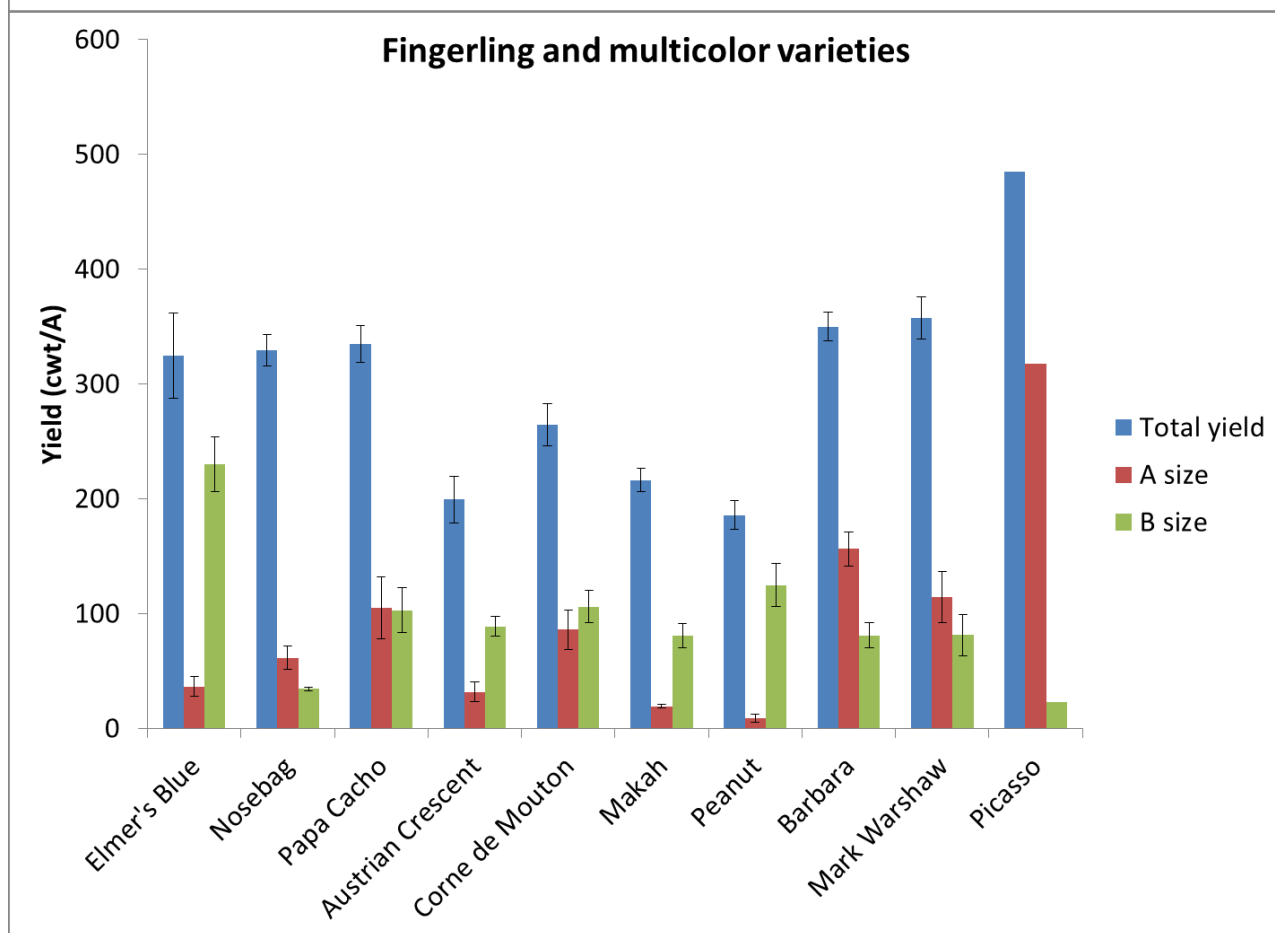
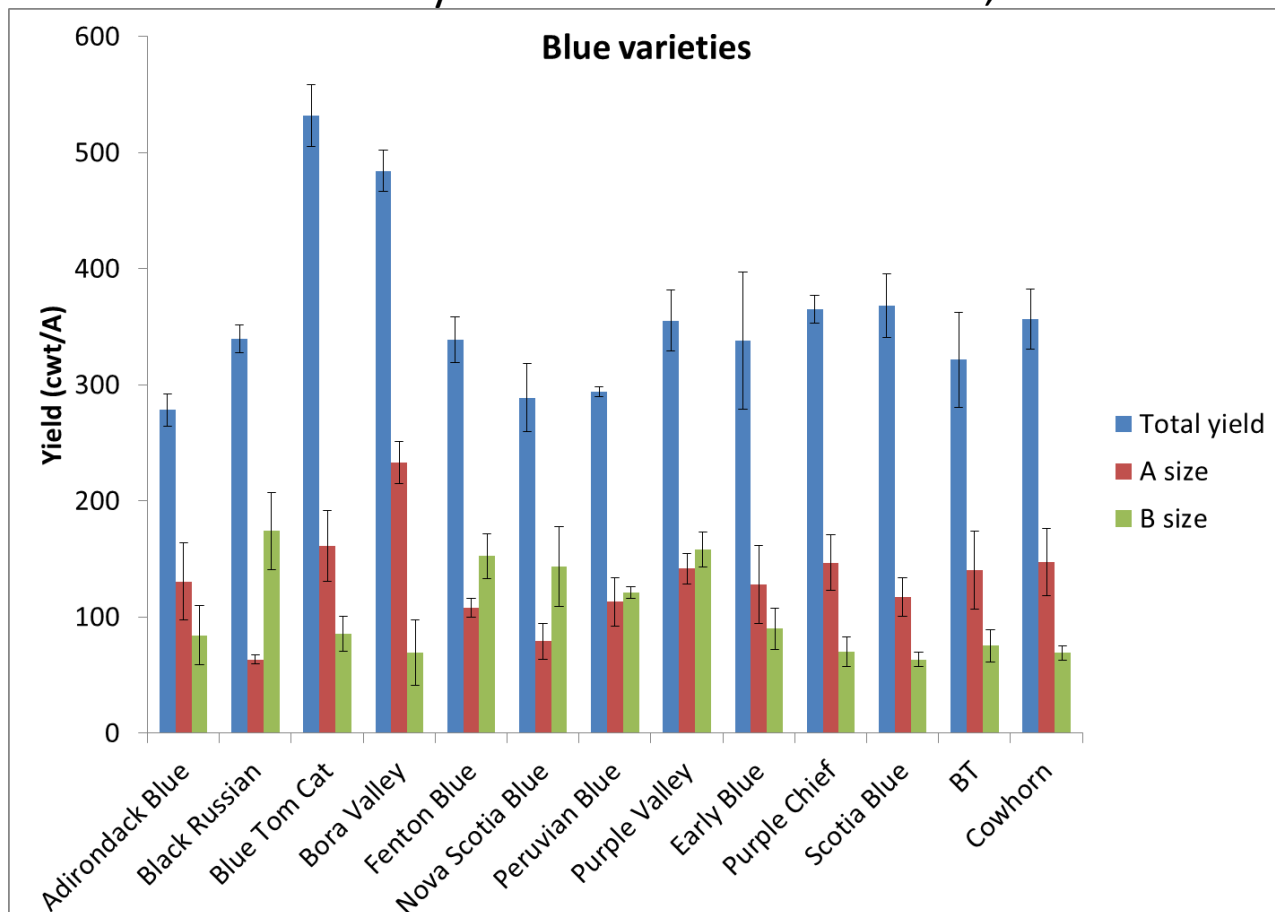
Background: Our variety trials from 2010-2012 focused on commercially available varieties, with trials at six Wisconsin organic farms and the West Madison Agricultural Research Station (WMARS). Trials identified several productive varieties, including Chieftain, Reddale, Red Maria and Dark Red Norland (red), Satina and Keuka Gold (yellow), Langlade and Kennebec (white), Red Thumb and Papa Cacho (red fingerlings), Austrian Crescent (yellow fingerling) and Adirondack Blue and Caribe (blue). In general, varieties that yielded well under organic management showed good row closure (a measure of vine vigor, and a characteristic that tends to suppress weeds) and tolerance for hopperburn (leaf damage caused by potato leafhopper). Tuber defects, including defects due to disease, contributed to yield loss. On average, across all farms and varieties, 24% of the total harvest was culled due to tuber defects in 2011, and 38% in 2012. Tuber diseases - in particular, common scab (caused by *Streptomyces scabies*), silver scurf (caused by *Helminthosporium solani*) and black scurf (caused by *Rhizoctonia solani*) - were problematic. Varieties differed for the level of damage caused by these diseases.

Recent trials: In 2013 and 2014, we focused on heirloom and specialty potato varieties that are not currently available from commercial suppliers - 24 SSE potato varieties in 2013 and 60 SSE and other specialty varieties in 2014, in cooperation with Midwest organic farmers and gardeners. Several heirloom varieties yielded as well or better than check varieties. Outstanding varieties included: Early Bangor, Candy Stripe and Yellow Rose (red skin), Hunter and Gold Coin (yellow), Barbara, Picasso, Mark Warshaw, Australian Crawlers and Gui Valley (multicolored skin), Corne de Mouton, Makah and Elmer's Blue (fingerlings), Purple Chief and Early Blue (blue skin) and Purple Valley, Fenton Blue and Peruvian Blue (blue skin and flesh). A new breeding line with red skin and flesh also showed promise and will be further evaluated.

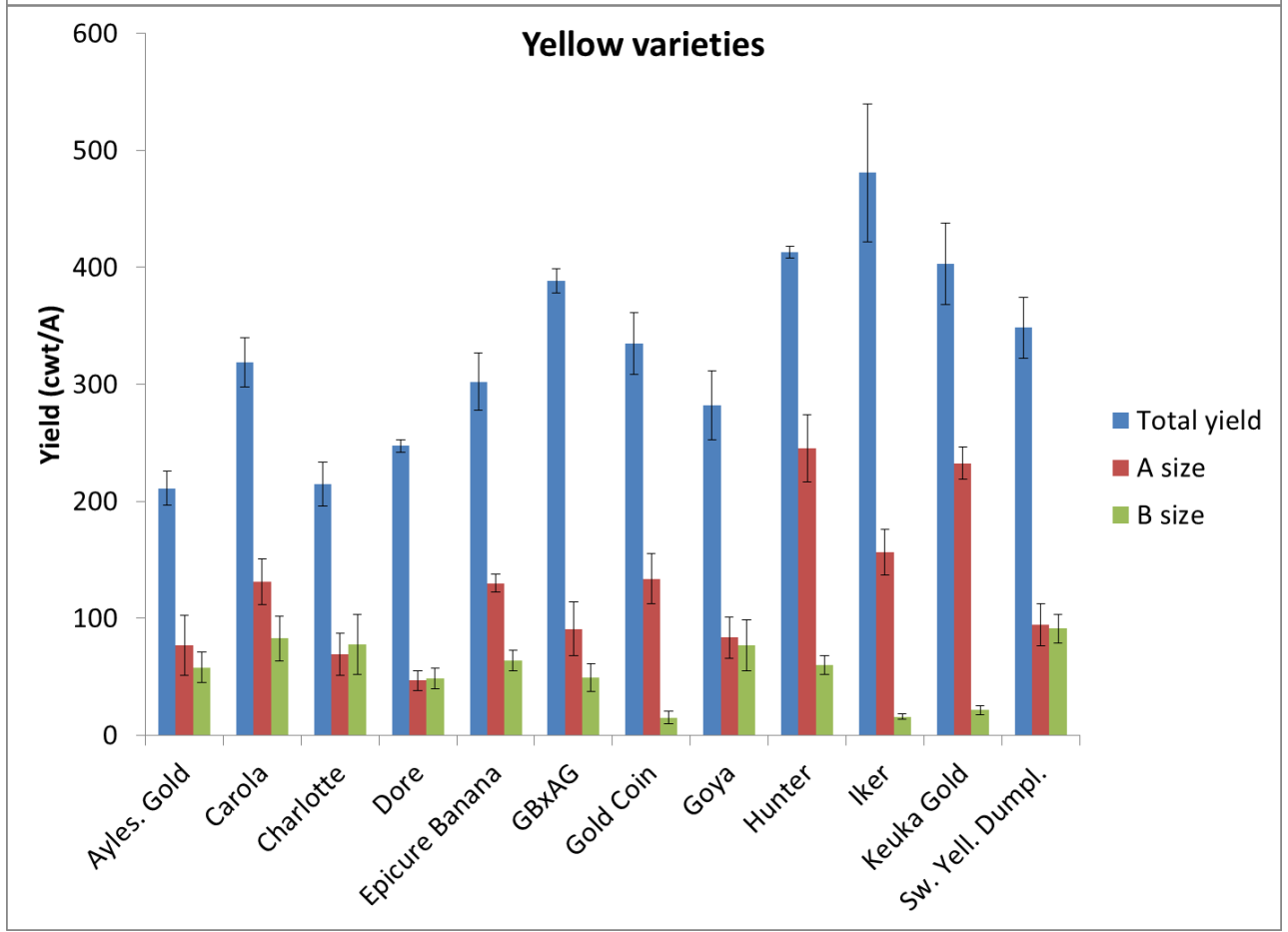
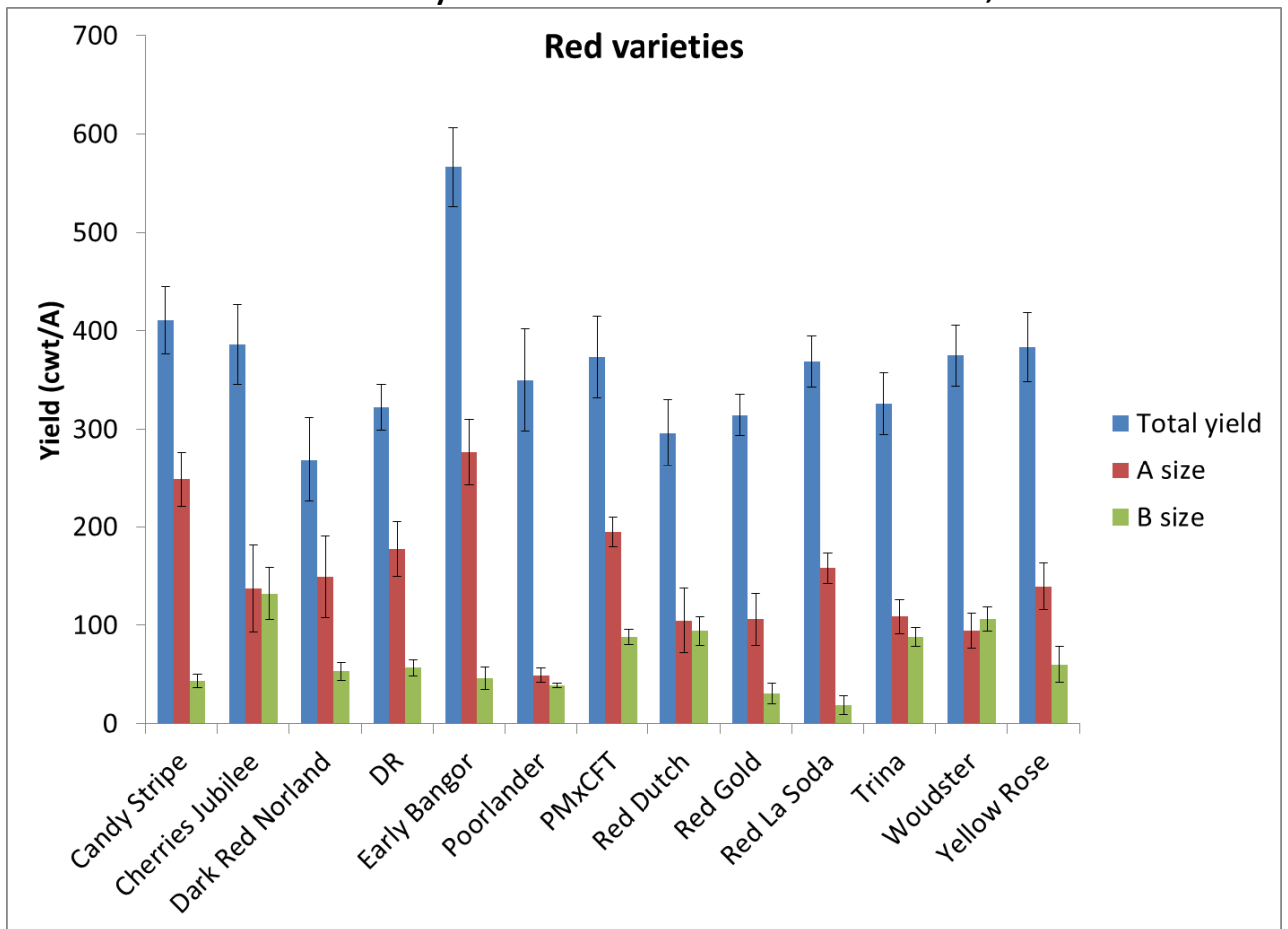
Yields shown are for trials at West Madison in 2014.



Potato variety trials at West Madison ARS, 2014



Potato variety trials at West Madison ARS, 2014



Potato variety trials at West Madison ARS, 2014

