

Bluestem Breezes  
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## Tomato Testing

On the day I am writing this article, the sun is shining and the wind subsided. From my office window, it looks like outside is where I ought to be. So, for the avid readers, you may guess that I am instantly dreaming of my garden.

K-State Specialist Ward Upham wrote this article about tomato research in Missouri. I am pleased to see their tests included both heirloom and modern varieties. Each of us garden differently and therefore each of us care about different aspects (heirloom or not, to spray chemical or not, high yields for canning or focus on a few snacks through the summer, to mulch or not, etc). Please, read on:

Tom Fowler, Horticulture Specialist with the University of Missouri Extension Service, took data on a large tomato planting in 2013. His study included 47 different varieties including those that some of our K-State Research & Extension Master Gardeners test for us. Tom went the extra mile and took yield data. Varieties included indeterminate and determinate types as well as heirloom and modern varieties. There are a couple of caveats that must be considered when trying to interpret this test.

1. This is one year's data. Always take a single year's data with a grain of salt. Differing environmental conditions can have a significant impact on yield from year to year. A variety that does very well under certain conditions may not do well under less favorable conditions. Other varieties may be more forgiving and yield well under a wider range of conditions.

2. Speaking of environmental conditions, 2013 was much cooler than normal. Those conditions were not good early in the season as tomatoes got off to a slow start. However, the extreme heat we normally experience during summer was very brief this year allowing production to occur throughout much of the summer.

The top ten varieties for yield/plant and fruit size are listed below. We did not include cherry tomatoes or other small fruited types such as Roma.

The "I" stands for "indeterminate" and means these plants become very large and rangy. The "D" means these are determinate plants that will stay smaller and are easier to control. Determinate plants require less support and are often planted closer together than indeterminate types. We also note whether the variety is a modern variety (M) or an heirloom (H).

### YIELD DATA

Variety (Growth Habit, Type, Yield/Plant (lbs))

BHN 876 (D, M, 24.4)

Celebrity (D, M, 24.0)

Big Beef (I, M, 22.6)

Beef Master (I, M, 22.5)  
BHN 871 (D, M, 22.1)  
Red Brandywine (I, H, 21.4)  
Polish Linguisa (I, H, 20.8)  
Oxheart (I, H, 19.8)  
Charger (D, M, 19.3)  
Red Bounty (D, M, 19.2)

#### FRUIT SIZE

Variety (Growth Habit, Type, Lb/Fruit)  
Amana Orange (I, H, 0.82)  
Aunt Ruby's German Green (I, H, 0.72)  
German Queen (I, H, 0.72)  
Hillbilly (I, H, 0.65)  
Vintage Wine (I, H, 0.54)  
Red Brandywine (I, H, 0.54)  
German Johnson (I, H, 0.53)  
Jubilee (I, H, 0.52)  
Mortgage Lifter (I, H, 0.51)  
Cherokee Purple (I, H, 0.51)

Now for several comments.

There is some dispute as to what constitutes an heirloom variety. We can discuss that in a later article. Heirlooms comprise several of the top ten in yield and all of the top ten in fruit size. Regardless, heirlooms are not commonly used by commercial growers. There are several reasons for this.

- Most heirlooms are not highly disease resistant.
- Heirlooms are large, rangy plants and require more space than most modern varieties. Even though yield per plant may be comparable, yield per acre rarely is.
- Most heirlooms are soft and won't ship well.
- Modern determinate varieties often have yields that are more compressed. In other words, they bear most of their fruit over a short period of time and therefore require fewer pickings. Actually, this is one of the characteristics we will be looking at to see if this still holds.

Even though heirlooms are not commonly used by commercial growers that must ship their produce, they can be a good choice for home gardeners or those that sell at farmer's markets if they can keep the plants healthy. Due to space constraints, we did not include all the varieties in this article. To see yield results for all varieties, go to: <http://www.ksre.ksu.edu/doc16610.aspx>

For a listing of the average weight of an individual tomato fruit, see:  
<http://www.ksre.ksu.edu/doc16611.aspx>

Additional information on tomatoes is available by visiting the Extension Office (215 Kansas, Courthouse, Alma; [kamayer@ksu.edu](mailto:kamayer@ksu.edu); 765-3821). For Bluestem Breezes archives, check out [wabaunsee.ksu.edu](http://wabaunsee.ksu.edu).