

Jimmy Acres: A Tommerdahl Family Farm

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Hello friends and neighbors!

Along with the official start of summer came the unofficial indicator of summer—fresh field grown, vine ripened tomatoes! We've already enjoyed a few juicy tomatoes fresh off the vine as they dribbled down our chin. In anticipation of all of the deliciousness on the way, our feature article delves into more detail than you probably care to know about tomatoes...check out page 2 for our nerdy science segment of the month.



NEW NEXT MONTH--FIND US AT THE NEW FARMERS MARKET IN CHAPEL HILL!!

For a limited time (**Sundays 4pm-6pm, July 16-August 13**), there will be a new farmer's market at **Cedar Falls Park off of Weaver Dairy Rd.** in Chapel Hill, and we'll be there with our produce!

The market is being co-sponsored by the Town of Chapel Hill Parks and Rec and the Junior League of Durham and Orange Counties and has been organized by local 12 year old, Marin Lissy. The "Produce for Parks" initiative is aimed at bringing local fresh produce to a setting that encourages physical activity to help people build an all-around healthy lifestyle. Stop by and check it out!

Other June happenings around the farm include:

- ♣ We've harvested cucumbers, green beans, squash, zucchini, beets, and garlic, and the watermelon, cantaloupe, and honeydew plants are looking especially fantastic! Peppers, okra, and eggplants are also looking healthy and are on the way!
- ♣ Out in our fruit fields, we picked our first apples! Not very big, and not very many, but they were delicious! As apple trees typically take 3-5 years to start producing abundantly (and our trees are no more than 3 years old), we anticipate being able to offer apples within the next few years. Similarly, our blueberry bushes are finally starting to look pretty good! They had a rough start during the drought 3 years ago, but they've pulled through and are providing us with some plump juicy berries this summer...again, hoping to have enough to share in coming years!
- ♣ Summerfield Farms' beef has come to Jimmy Acres! Jake and Brie have been working hard to raise grass-fed, grass-finished, happy cows at Summerfield Farms, just outside Greensboro. We are excited to be able to bring their flash-frozen for added freshness beef to both our Semora and Chapel Hill locations. Custom cuts, bulk orders, or just a pound of good ol' ground beef are available...email for details, or simply stop by the farm stand and ask!



Hybrid vs. Heirloom...What's the Difference??

After selling tomatoes for a few years, I've noticed that the terms hybrid and heirloom are thrown around without much thought as to what they actually mean...and maybe it doesn't really matter, but as a biologist, I feel the need to address the topic and use it as an opportunity for our next nerdy science segment! It seems to be the general thought that hybrid tomatoes are big and red, and heirloom tomatoes are anything else. But there are many varieties of large red heirlooms, and there are other colors and sizes of hybrids (think Sun Gold). There is also the misconception that hybrids are more prolific, disease resistant, and uniform than heirlooms, which is not entirely true. But let's start with the science:

What's a Hybrid?

A hybrid (of anything) is a cross between two varieties. By crossing varieties with different characteristics, you can control for and select features that you want in your tomato—remember Mendel's peas and Punnett squares from your high school biology class?

	Db	Db
dB	Dd Bb	Dd Bb
dB	Dd Bb	Dd Bb

First generation (F₁)

Here's your quick refresher: For the sake of simplicity, let's say Tomato 1 is disease resistant (dominant trait; genotype = DD), and Tomato 2 is not (recessive trait; genotype = dd). But Tomato 2 is big (dominant trait; genotype = BB) and Tomato 1 is small (recessive trait; genotype = bb). When you cross the two (DDbb x ddBB), you end up with tomato plants that show the dominant traits of disease resistance and produce large tomatoes—great!! But they are heterozygous for both traits (genotype = DdBb), which means that in the next generation (DdBb x DdBb), things get a bit more complicated and the Punnett Square gets a bit bigger. Here, only 9/16 of tomato plants will be both disease resistant and have large tomatoes (blue boxes), which is no good if you want to save seeds to grow the next year—you might not get the same type of plant (red boxes)! This also means that hybrid tomato seeds are more expensive because you have to re-make the original cross each year, whereas with heirlooms (plants are homozygous for each trait), you can simply save your seeds from year to year and get the same (or very similar) plants.

	DB	Db	dB	db
DB	DD BB	DD Bb	Dd BB	Dd Bb
Db	DD Bb	DD bb	Dd Bb	Dd bb
dB	Dd BB	Dd Bb	dd BB	dd Bb
db	Dd Bb	Dd bb	dd Bb	dd bb

Second generation (F₂)

But tomatoes have more than two traits, and selecting for one means unintentionally selecting *against* others, like taste. So while it is entirely possible to breed hybrids selecting for great taste (again, think Sun Gold), the practical application of the science is generally reserved for traits like disease resistance, productivity, uniform size/shape, predictable ripening, hardiness/shelf life after picking...basically things that make them easier to grow and sell on a large scale. All heirlooms, in fact, were at one time hybrids. But through selective breeding and backcrossing over many generations, the variety has been dehybridized to become *open-pollinated*, meaning that when crossed with themselves, the offspring show the same characteristics as the parent plant. Generally, the trait selected for in this process is great taste!! This year, we are growing both hybrid and dehybridized (i.e. heirloom) varieties of Big Beef and Sun Gold side by side to see how they stack up!

So...which is better?

It depends on what your goals are and what your growing conditions are. In a 3-year side-by-side study done by tomato expert Craig LeHoullier, he determined that even when comparing hybrids selected for disease resistance, heirloom varieties were no more likely to become diseased by the end of the growing season. In terms of productivity, heirlooms were more variable, both by variety and year-to-year depending on weather conditions. But some heirlooms produce way more than hybrids, and some heirlooms produce way less than hybrids. Some hybrids do have a decent taste, but in general do not compare to the rich flavor or variety of flavor found in (most) heirlooms. The one thing you can say with certainty is that the diversity of colors, sizes, shapes, flavors, textures, sweetness, juiciness, and overall variability is far higher among heirlooms than hybrids.

What is grown at Jimmy Acres?

We grow mostly heirloom varieties, but we did throw in a few hybrids this year to test how they compare. We add a few new varieties each year (we have over 55 total this year!) in order to assess which ones work best for our growing conditions (and to hedge our bets with what our growing conditions will be), but also because we know that different people like different things in a tomato. So whether you like juicy or dry, sweet or tart, big or small, seedy or meaty, fruity or tomato-y, red, pink, orange, yellow, green, purple, black, white, or some combination thereof, we have the perfect tomato for you!



If you have any suggestions for things you'd like to see in future newsletters, or have any ideas for how we can improve our customer service or your produce-buying and -consuming experience, please let us know! And as always, please feel free to pass this along to all of your produce-loving friends and neighbors!

“America of the future will be all malls connected by interstates. All because your parents no longer can their own tomatoes.”
~Garrison Keillor~