

Early Reports on Ruby June – Could it be a Keeper?  
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In a side-by-side comparison with a number of other varieties, Ruby June has performed well this season in a strawberry variety and advanced selection trial at Cottle Farms in Faison, NC. The data for average berry size and marketable yield shown below (Table 1) is for the harvest period from March 27 – May 15, 2017. What has been especially impressive to is the steady production of Ruby June over the last 6-7 weeks. It's a variety that doesn't seem to concentrate the crop over a shorter period of time, which can be a very good thing if one of your major weekends (like Mother's Day) happens to coincide with rains!

I will be heading back down to Faison today from my home in Williamsburg, VA, for the 13<sup>th</sup> harvest this week of May 22<sup>nd</sup>, and true to its name, *Ruby June*, I believe we'll see some pretty nice berries coming off this new Lassen Canyon variety right into June!

I am not sure whether Ruby June will keep flowering and fruiting beyond early June in North Carolina, but what is very noteworthy is how early Ruby June can be! On April 20<sup>th</sup>, I shared some preliminary data with the folks who attended our Strawberry Field Tour in Faison at Cottle Farms, and it showed that Ruby June plugs had produced in the first six harvests 296 grams/plant (0.65 lb/plant) with average berry size of 28 grams (1 ounce) vs. Sweet Charlie plugs that had 387 grams/plant (0.85 lb) and berry size of just 17 grams (0.6 oz). That's only 91 grams difference (0.2 lb) between our earliest variety, Sweet Charlie, and Ruby June. One of the attendees from Maryland at the Faison Tour (4/20) commented about Ruby June:

"These Ruby June's are impressing me. Same window as Charlie's but a much better looking plant, firmer berry and 4 out of 5 people like their taste over Charlie's."

Last week, this same grower (Russ Russ Shlagel), sent this follow-up message to me:

"I don't know if it will replace Chandler but I will definitely use it as a replacement for Sweet Charlie's. I am in field as I write this and evaluating flavor. Still outstanding. Some green fruit but very few flowers. It has held its size well and I have experienced no misshapen fruit like some others have talked about. We have had some heavy rains and it takes the water. It's a keeper."

Table 1. Marketable Yield Per Plant and Average Berry Size (12 Harvests, Faison)

Variety	Plant type	Berry size (g/berry)	Market Yd (g/plant)
Ruby June	Plug	25.1	1.55
Ruby June	Cut-off	24.1	1.40
Merced	Plug	25.9	1.48
Chandler	Plug	19.4	1.56
Chandler	Cut-off	21.0	1.11
Camarosa	Plug	21.7	1.68
Camarosa	Cut-off	23.7	1.28

A lot of growers have questions about the length of the season of any new variety, and in Figure 1 you can see a photo of Ruby June cut-offs at the Rudd Farm in Greensboro, NC that was taken on May 16<sup>th</sup> (just after our 12<sup>th</sup> pick in Faison), and you can see some green fruit of good size that will be ripening at the end of the month and into June.



Fig. 1. Ruby June cut-off plants at Rudd Farm in Greensboro, May 16, 2017. These cut-offs were planted October 10, 2016. The Rudds have been evaluating the performance of both Ruby June plugs and Ruby June cut-offs this spring season, and one thing that impressed us last week was the size and quantity of green berries that will be ripening into the second half of May and will be well timed of Memorial Day weekend. I know "we are in a plug world" here in the Carolinas and Virginia, but so far in our research testing in Faison, the Ruby June plugs and cut-offs have been neck-in-neck in yield all season (see Table 1).

#### Ruby June Yields

Over the last two seasons I have been hearing good comments about the overall performance of Ruby June from growers, customers and *researchers*, including Dr. Jayesh Samtani, Assistant Professor and Small Fruit Extension Specialist, VA-Tech, who at the July 28, 2016 Southeast Virginia/Northeast North Carolina Summer Pre-plant meeting in Virginia Beach, spoke of the superior quality of Ruby June in both his greenhouse and field trials. I think the main concern at the time (summer 2016) with Ruby June had to do with the question of whether it compared favorably with leading varieties like Chandler and Camarosa in marketable yield.

University tests. In his 2015-2016 trials, Dr. Samtani indicated that Ruby June was slightly less productive than Chandler at his testing location (Hampton Roads AREC of VA-Tech). In other university trials in the region in 2015-2016, Dr. Gina Fernandez at NC State, has reported that Ruby June produced 82% of the marketable yield of Chandler at Clayton Central Crops, and in another 2015-2016 trial at the Piedmont Research Station (PRS) in Salisbury, Ruby produced 85% of Chandler (<https://strawberries.ces.ncsu.edu/2016/08/2015-16-strawberry-yield-data-from-ncsu-breeding-plots/>). Average berry size for Chandler in the same season was 19.8 grams at Clayton and 16.9 grams at PRS. In Clayton, Ruby June berry size averaged 20.6 grams and at PRS, average berry size was 24.4 grams. As you can see in Table 1, Ruby June plugs are producing the same amount of marketable fruit as Chandler (after 12 harvests), and what is especially notable in recent harvests in Faison, NC, is how Ruby June keeps "adding" to its total marketable yield whereas the season for Chandler (plugs) is now pretty much over, as few, if any Chandler berries exceed 15 grams (that is our cut-off for marketable fruit).

To illustrate this point how Chandler marketable yield has already "plateaued" in the early weeks of May, it is worth noting that the marketable fruit yield for Chandler plugs was 1.53 lb after the 11th harvest, and it increased only to 1.56 lb after completing the 12th harvest. In contrast, the marketable yield for Ruby June was 1.37 lb/plant after 11 harvests, with harvest 12 on May 15, 2017 it increased to 1.55 lb/plant. And, based on the nice looking green fruit we are still seeing in the 2<sup>nd</sup> half of May, a market yield of perhaps 1.75 lb/plant appears to be within reach.

Ruby June Flavor – "It takes me right back to my childhood." (Dr. Jean Carter, Raleigh, NC)

It is more difficult to share scientific data on Ruby June flavor and quality, as I am not aware of any specific study of the sensory characteristics of this new variety compared to popularly grown strawberry varieties in our region like Sweet Charlie, Chandler and Camarosa. In an effort to get feedback on Ruby June's flavor and quality, I posted this advisory on April 23<sup>rd</sup>: "Berry sampling – it can be a lot of fun to let your customers evaluate your varieties." <https://strawberries.ces.ncsu.edu/2017/04/berry-sampling-it-can-be-a-lot-of-fun-to-let-your-customers-evaluate-your-varieties-42317/>

I have still not received back any customer taste evaluation results from anyone, but I have definitely been getting some grower feedback, such as this note from like Lowell Yoder in Rustburg VA on May 18, 2017 (I was not even aware he was testing Ruby June)

"Despite some pretty small plug plants last fall, I've been pretty impressed with Ruby June this year. Do you know is it possible to buy plants anywhere this year? I understand that it was going to be "cleaned up" then planted in Canada, so there might be some delay on large volumes. I would love to try some again this year and get them in on time to better evaluate production. Thanks"

To Lowell's question about availability of Ruby June for planting this fall, you will be able to find in this issue of the *Strawberry Grower* the names of several suppliers. I can share that Westech LTD in Alberton, PEI, Canada, has recently been licensed by Lassen Canyon to propagate Ruby June, and this nursery will be receiving 'test tube' plants this October (2017), and Westech and Cottle Strawberry Nursery (Faison, NC) are planning to offer runner tips of this variety in 2020.

In the community where I now live (Williamsburg, VA), there is a very popular Farmers Market in town, and on one Saturday morning in late April I decided to have a vendor who sells strawberries in this market to do a ‘blind taste’ evaluation following the guidelines I posted on the Strawberry Growers Information Portal on April 23. In addition to having her ‘test’ Ruby June, Merced, Camarosa and Chandler, I asked her to also evaluate three of the numbered selections from the Lassen Canyon Breeding program that are being tested in our trial down in Faision, NC. You’ll also note under the ‘Name of actual variety/selection’ column that I actually included Ruby June two times (Sample No. 1 and Sample No. 7). This was the rating scale: 5=excellent; 4=very good; 3=good; 2=fair; 1= poor. I also provided some comments to my Williamsburg test person to assist her in making her various ratings for skin appearance, flesh appearance, flavor, and firmness. You will note that she elected to only provide an overall ranking for three of the entries. The actual names of the variety/selection are in the far right column.

Skin Appearance – please take into account skin color and berry ‘shape’ and feel free to jot down any notes like “very attractive.” It has been my experience that customers in the Carolinas are very accustomed to darker red fruit, but some people like a brighter red color berry and may write something like “too dark.”

Flesh Appearance – this is very subjective and feel free to jot any notes about the flesh color and appearance

Flavor – this is very subjective, but it would help if you would write down any notes like “not sweet” or “too acid” or just “no flavor”

Firmness – this is also a very subjective thing! Some people really like a ‘juicy’ berry and some softness is not an issue; others like a berry with a crunch! Feel free to jot any notes under firmness

Overall rank – go ahead and provide an overall ranking. A simple system we’ve adopted for doing the overall ranking is to assign three pluses (+++) for a really great berry, two pluses for a good berry, and a single plus (+) for a poor berry.

Table 2. Evaluation by Williamsburg Farm Market Vendor, April 23, 2017

<b>Blind Sample Number</b>	<b>Skin Appearance</b>	<b>Flesh Appearance</b>	<b>Flavor</b>	<b>Firmness</b>	<b>Overall rank</b>	<b>Name of actual Variety/Selection</b>
<b>1</b>	4	3	3	4	<b>2</b>	Ruby June
<b>2</b>	4	4	4	4		15T32
<b>3</b>	3	4	2	3		Merced
<b>4</b>	4	5	2	2		Camarosa
<b>5</b>	3	3	2-washed out	2-mushy		103T28
<b>6</b>	4	5	3	3-more acidic		Chandler
<b>7</b>	4 – nice shape/size	2 – too white	5 – wow!	4	<b>1</b>	Ruby June
<b>8</b>	4	3	4-nice!	2-too firm	<b>3</b>	<b>22K45</b>

One of the interesting things to come out of this evaluation was my discovery that in this region of Southeast Virginia (Tidewater), strawberry customers sometimes think that darker berries are overripe! And, in a comment she wrote on the evaluation sheet (not shown) for Sample 1 under Skin Appearance: “I like it, but people may think it’s too dark.” This did not seem to be an issue for the other Ruby June berry in the sample (Sample 7). One thing that did come through was her overall satisfaction with Ruby June, as it was ranked No. 1 and No. 2 (Table 2).



Fig. 2. Ruby June has an attractive bright red color that has been getting very high marks on flavor over the course of the 2017 strawberry season. Aaron Goode, who has been growing strawberries in the plasticulture system as long as anyone I know in Virginia, has been evaluating Ruby June over the last two seasons, and recently commented, “Ruby June is a real gourmet variety.” It has what Jim Bagdasarian, the Lassen Strawberry Breeder, describes as “good strawberry flavor.” Personally, I have not experienced a strawberry of this quality since the ‘Earliglow’ matted row variety.

Not to miss any opportunity for customer feedback, I had the occasion on the following weekend of April 29-30, 2017, to participate in a strawberry fundraiser for a scholarship

program at Hudson Memorial Presbyterian Church in Raleigh (Figure 3). The farmer supplied us with Chandler, Camarosa and Ruby June. All of them were simply FANTASTIC. But, when I saw our family friend, Dr. Jean Carter, who delivered our daughter some 30 years ago, I decided to have her ‘taste test’ these three varieties. And after biting into Ruby June for the first time, she simply said: “*It takes me right back to my childhood.*”



Fig. 3. Annual spring strawberry fundraiser at Hudson Memorial Presbyterian Church (HMPC) in Raleigh, NC (April 29-30). This year, for the first time, folks got to try ‘Ruby June.’

In summary, I wish to take this opportunity to acknowledge all of our test cooperators this season across South Carolina, North Carolina and Virgina. We are especially indebted to Ron Cottle, who allowed let us test some 100 Advanced Selections from the Lassen Canyon Breeding program on his farm in Faison. Out of those 100 selections, we have already identified 12 selections that we will coninue to test next year in cooperation with the Lassen Canyon Breeding program and Cottle Farms. I also wish to sincerely thank Mr. Whit Jones for the *outstanding assistance* he has provided to this research project -- not many people know this, but Whit was in the very first *Small Fruit Production* course I taught at NC State in 1980. Whit and I will be undertaking our 7<sup>th</sup> week of harvesting and data collection tomorrow (May 24), and, quite honestly, if Ruby June decides to finally call it ‘quits’ in early June, neither of us will be disappointed – we’re both ready for a serious break from strawberries!