

FBGA Key Project - July Data and Analytics

Our FFGT/IFAS team gathered data on new shoot production on the 4 sample farms through the first week of July. Don Rockwood has provided a summary of the data attached in his Table A5, see attached, which includes the New Shoot data for the first two of six months. He also provided some of the information that defines our approach and sample size, attached.

Of course we look at the data and wonder what it means. I have attached Metrics aimed at helping us with this. Here are a few points to help engage you with the Metrics doc.

Estimating Shoot Production - as we gather the data on new shoots each month we get steadily closer to knowing the actual shoot production of each of the farms. The latest month showed significantly greater shoot quantities than in June for all farms except MFA, boosting estimated season projections, shown in the table at the top of the Metrics. It appeared that MFA started shooting earlier and the June quantities (before harvest began) were continued as a pace in the 2nd month. Hi Hat Ranch had not started shooting in the June data but showed a strong month in July. They are on a track to steadily improve their projected production.

Growth over previous seasons - We understand that the new culms each season should generally be an increased size from previous production as the plants increase diameter generationally. I provide the charts "New Shoots Change in Size" to observe this. We are comparing the new season % of size categories of shoots with its baseline prior to this season. Frankly i've been surprised at how many small size shoots are part of the farm. I've organized the charts by age with Fatout and Hi Hat (both planted in 2018) reflecting a similar progression of less 1" and 2" culms and a greater number of 3" culms. I've grouped Merrick 27 with MFA (both planted in 2020) as they are younger and they demonstrate a shift from primarily 1" shoots to primarily 2" shoots.

Pace - We would like to better understand the pace of production over the six month season so we can potentially correlate this to rainfall or other causal factors. On the second page you see charts showing production in pounds by farm by month. I use an imperfect method of converting diameter size to pounds and we plan to improve that formula during the season. I show next to it the same idea but using Basal Area of shoots by month, which is likely more accurate, but a less familiar metric.

We have more to discuss in the future regarding:

- % less than 3"
- how do we define when a farm is mature?
- variation in plant productivity
- what drives differences in farm productivity?
- how do we relate the productivity to expected monetary farm returns.

Our expectation is that the Key project will unlock important understanding in how the plants grow and what to expect in production.

Feel free to email me with your questions or thoughts.