



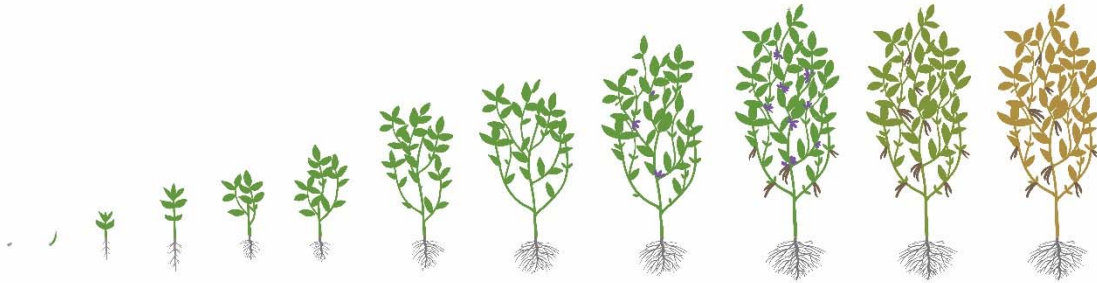
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WHITE PAPER

Soybean Variety Trial-November 2017

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Soybean (Edamame) Production in Hawaii

Rich in plant based protein, antioxidants and phytonutrients

Lifecycle: 60-75 days

Planting: Direct seeded

Replication: Three

Planting Depth: 1 to 1 ½ inches deep,

Row Spacing: 18 inches

Plant Spacing: 3 to 4 inches within rows

Ph: 5.5-6.0

Varieties being evaluated in 2017- Waimanalo Research Station

1. Kahala (UH Seed Laboratory) root knot nematode resistant
2. Beer Friend (Kitazawa Seed Company)
3. Midori Giant (Territorial Seed Company)
4. Kuroshinju (Territorial Seed Company)
5. Sayamusume (Territorial Seed Company)
6. Envy (Johnny's Selected Seeds)
7. Tohya (Johnny's Selected Seeds)
8. Butter Bean (Jung Seeds)
9. Be Sweet (Jung Seeds)
10. Goo (UH Seed Laboratory) –Being evaluated in 2017
11. Big Island (UH Seed Laboratory)-Being evaluated in 2017

Common pest: birds, French bean fly, Chinese rose beetle, Southern green stink bug, mites, and white fly



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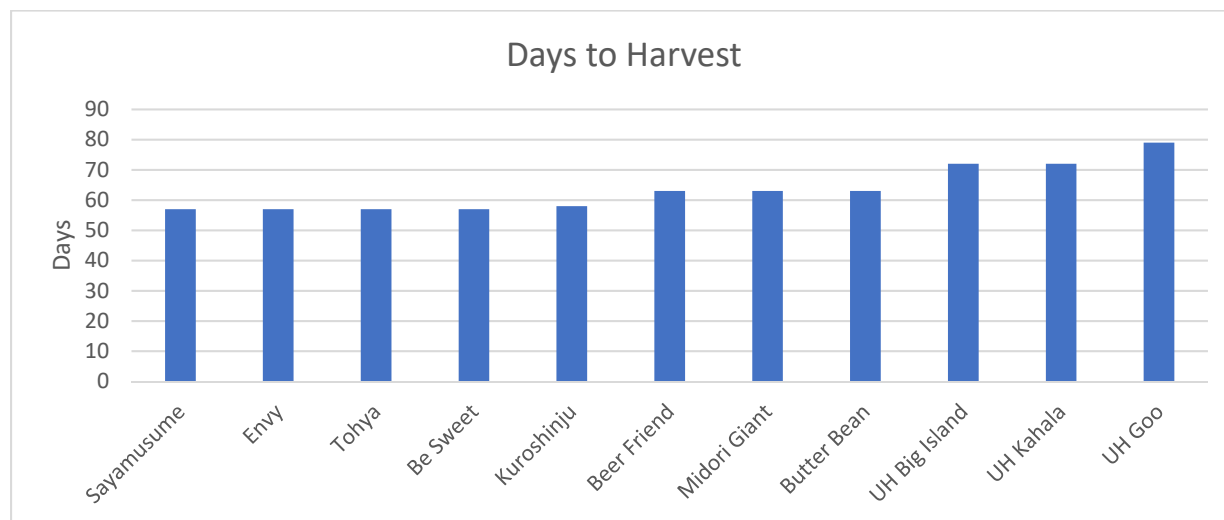
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Harvest: In commercial operations, the whole plant is harvested when majority of the pods are filled in.

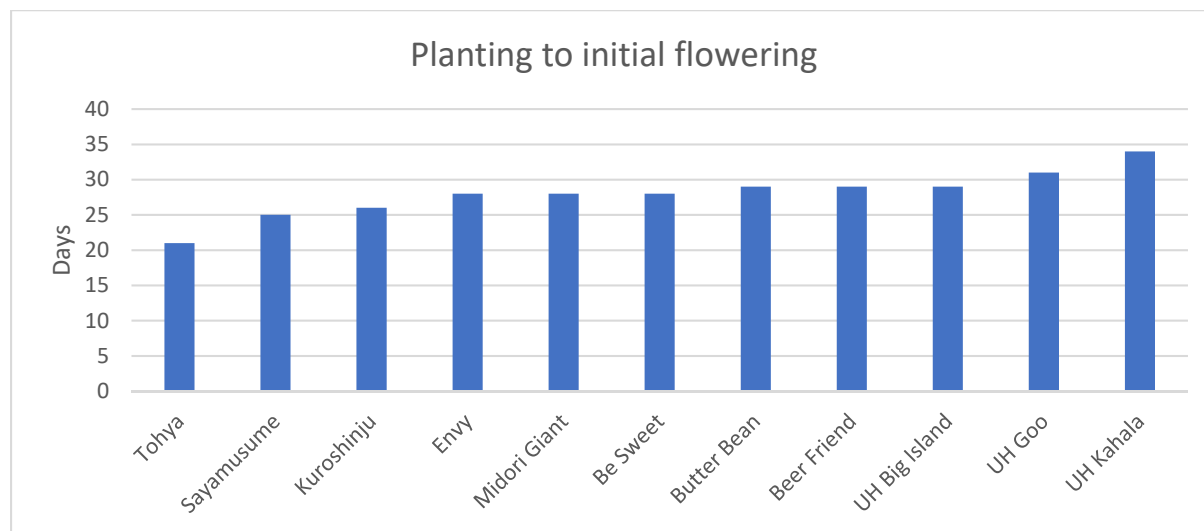
Value Added Products:

Soymilk, soy flour, tofu, soy protein, soy sauce, etc.

Overall Days to Harvest



Indication of early to late varieties

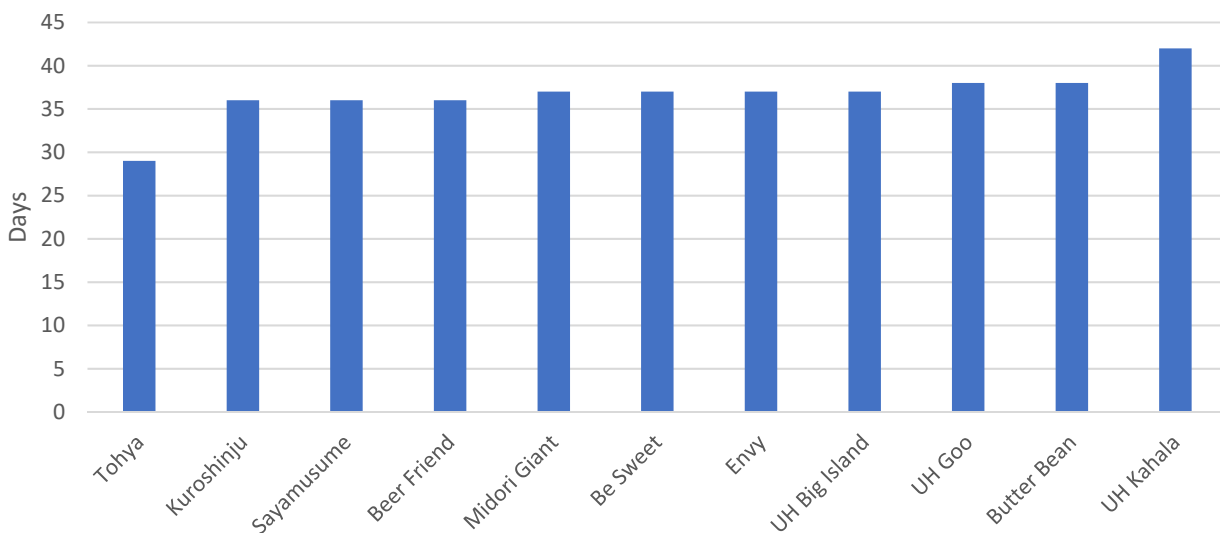




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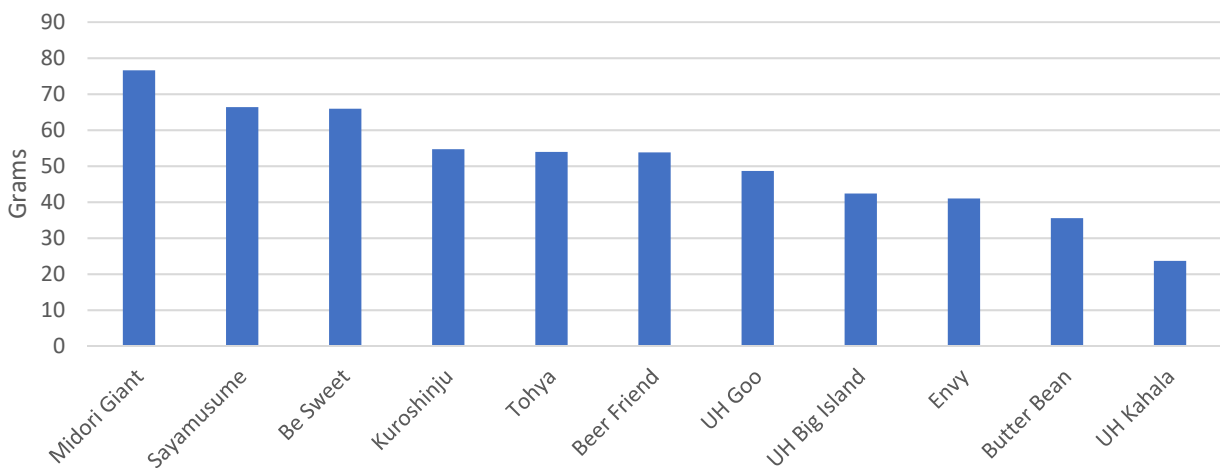
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Planting to last flowering



Indication of Pod Size

Average weight for 20 pods

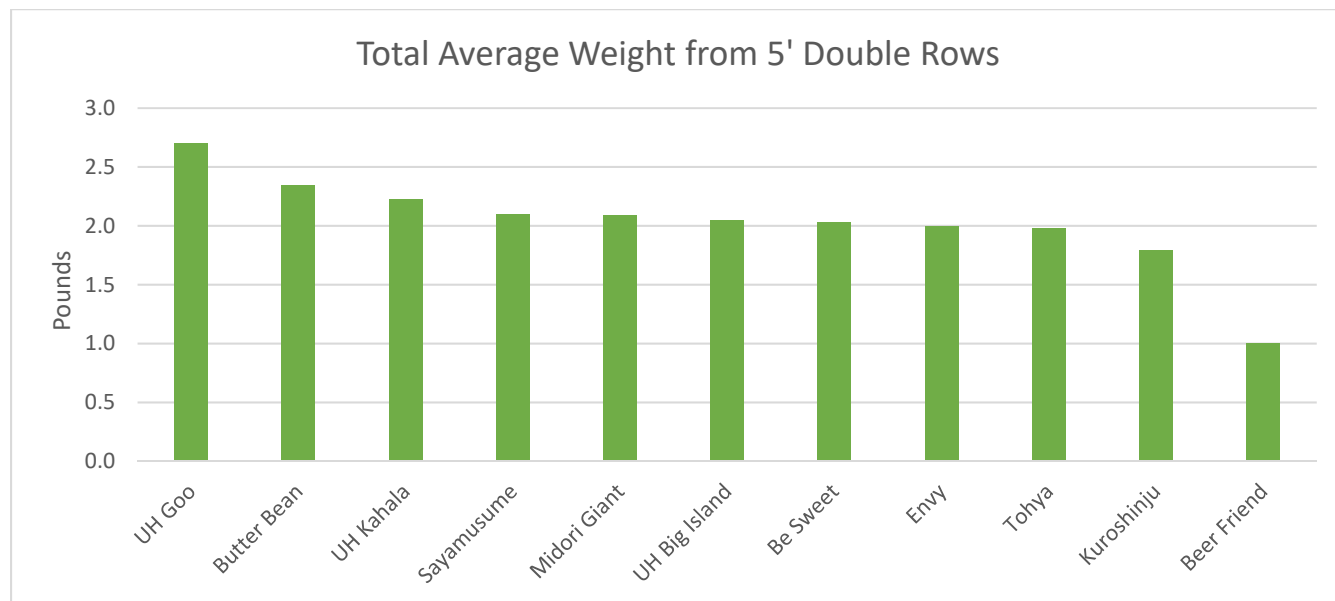




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Average Weight from 5' Double Rows



Photos of Field Trial Can Be Found Here:

<https://www.flickr.com/photos/150583970@N07/albums/72157684327160862>

Summary

Soybeans were planted on August 1, 2017 and harvested at the end of September and early October. Beer Friend had the best flavor among samplers, during an informal taste sampling. However, it had the lowest crop yields. Kuroshinju and Tohya were easy to harvest varieties as many of the pods were uniform in size and easily detachable from the stem. Both had the low yields, but nice size pods.

UH varieties such as Big Island, Goo and Kahala were late maturing. Big Island and Goo have commercial production potential while Kahala would be a home gardener type of variety due to its small size pods and non-uniform ripening. Kahala has heavy fruiting potential.

Harvest and sorting of the soy bean pods were labor intensive. Imported soybeans can be found in retail stores washed, packaged and ready to eat for about \$1.00 to \$1.50 a pound. This trial indicated that there are viable varieties than can be grown for the local fresh market. However, growers should ensure they obtain an optimal price to recover production and harvest expenses in order to generate a profit from fresh pod sales.