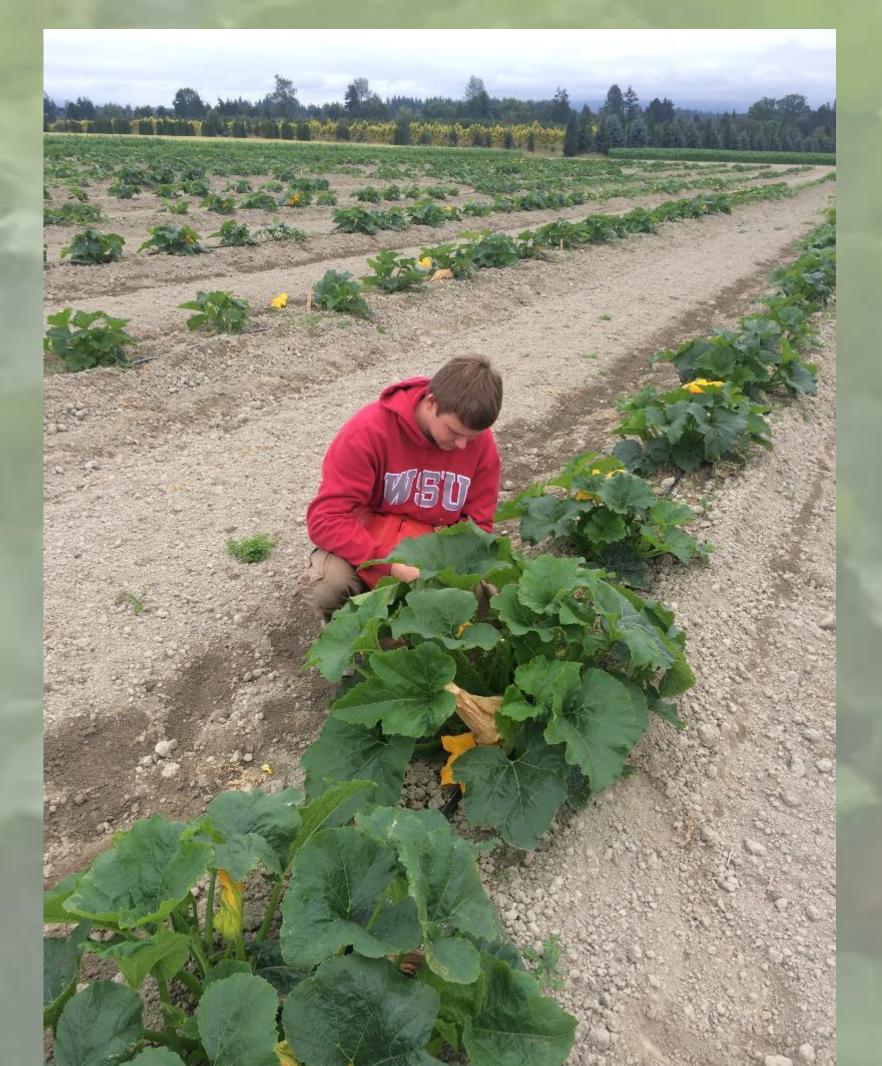
Sakata Seed America Product Development Center Mount Vernon, Washington Ryan Solemslie Summer 2016

Introduction

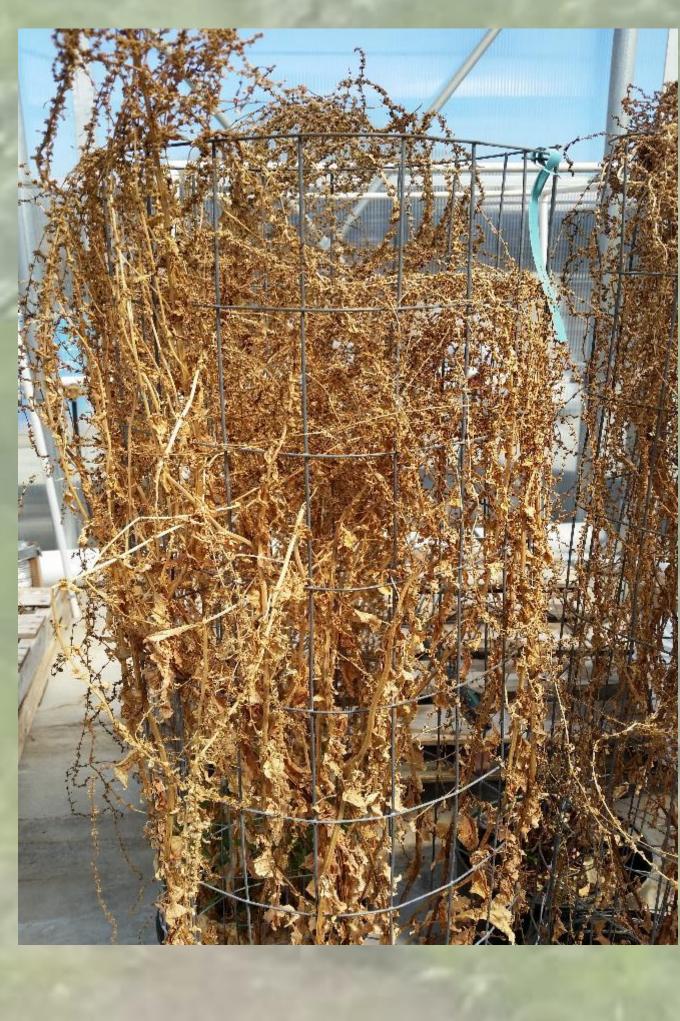
The Sakata Seed America Product Development Center is a division of Sakata Seed America—a vegetable and flower seed company. At the product development center, the company's plant breeders work on developing new crop cultivars and increasing parental crop lines used to develop commercial cultivars. At the facility they primarily work on developing pumpkin, beet, and spinach cultivars and hybrids for commercial



This is an picture of me self-pollinating F3 pumpkin varieties.



Harvested pumpkin seeds soaking to remove excess fruit material from the seeds before drying.



This is an image of beet seed that is ready to harvest after letting the beet plant dries down.

Job Responsibilities

- 1. Self and cross pollinate pumpkins.
- 2. Harvest and extract seed from breeder crops, specifically pumpkin and beet.
- 3. Assist breeders in organizing and planting field trials and test plots.
- 4. Communicate with the farm manager and breeders on regular basis for pest and disease management.

Summary

Interning as an assistant plant breeder for Sakata Seed America Inc. has provided me with invaluable experience heading into my last year of my undergraduate studies. Up to this point, my studies have focused on greenhouse management, but this internship introduced me to plant breeding and seed production. After working with the breeders at Sakata I have a new found interest and understanding of crop development and plant breeding, two major aspects of agriculture. I now understand how it is important to continually generate genetic diversity in plant breeding as well as continually try to be one step ahead of pest, diseases, and consumer trends. Over the course of this summer, I have learned many professional lessons and now am interested in studying plant genetics and breeding further as I near the end of my undergraduate career and the possibilities of graduate school.









Left: This is an image of a female flower covered the previous day before it opened to prevent possible unintentional cross pollination. Left-center: In this photo I am self-pollinating a previously covered pumpkin flower. Right-Center: An image of a pollinated female flower that was marked with the variety name and generation of pollination. Right: This is a pumpkin cross nearing maturity when the fruit would be harvested for the seeds which will be later grown in a greenhouse to shorten generation time.