

QUICK & APPLIED AGRICULTURAL TRIAL

Persian Cucumber (Beit Alpha) Variety Screening 2014*J. Sugano, J. Uyeda, S. Fukuda, S. Migita and K.-H. Wang**University of Hawai'i at Mānoa, College of Tropical Agriculture and Human Resources*

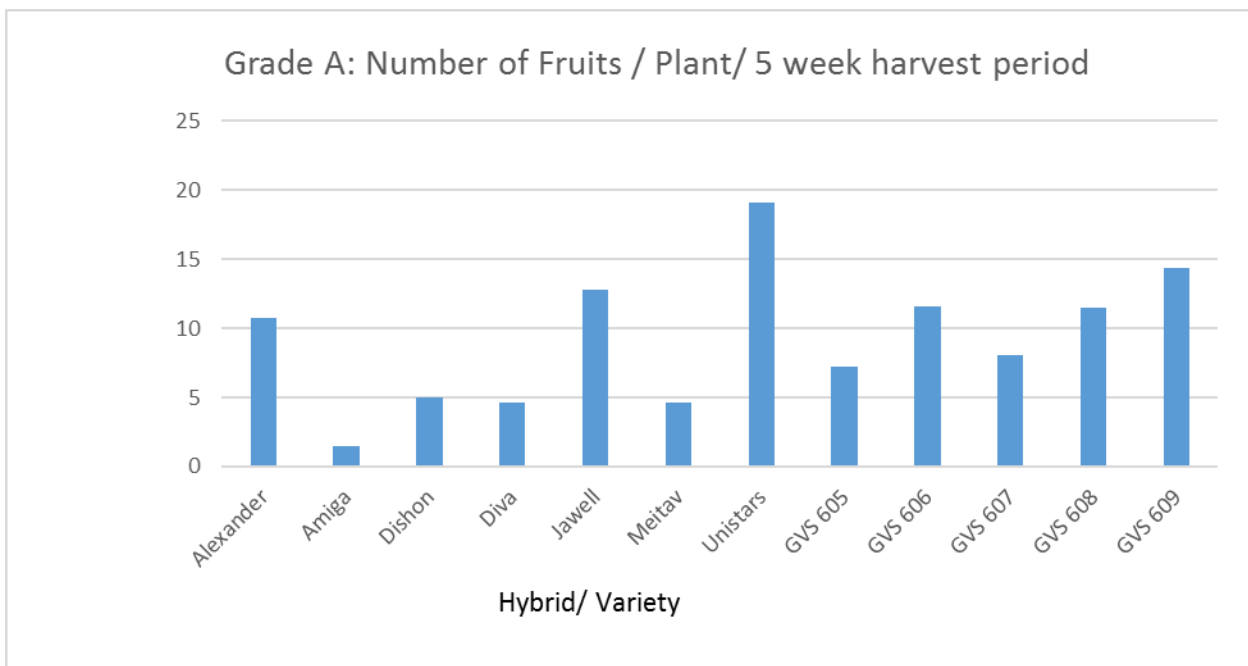
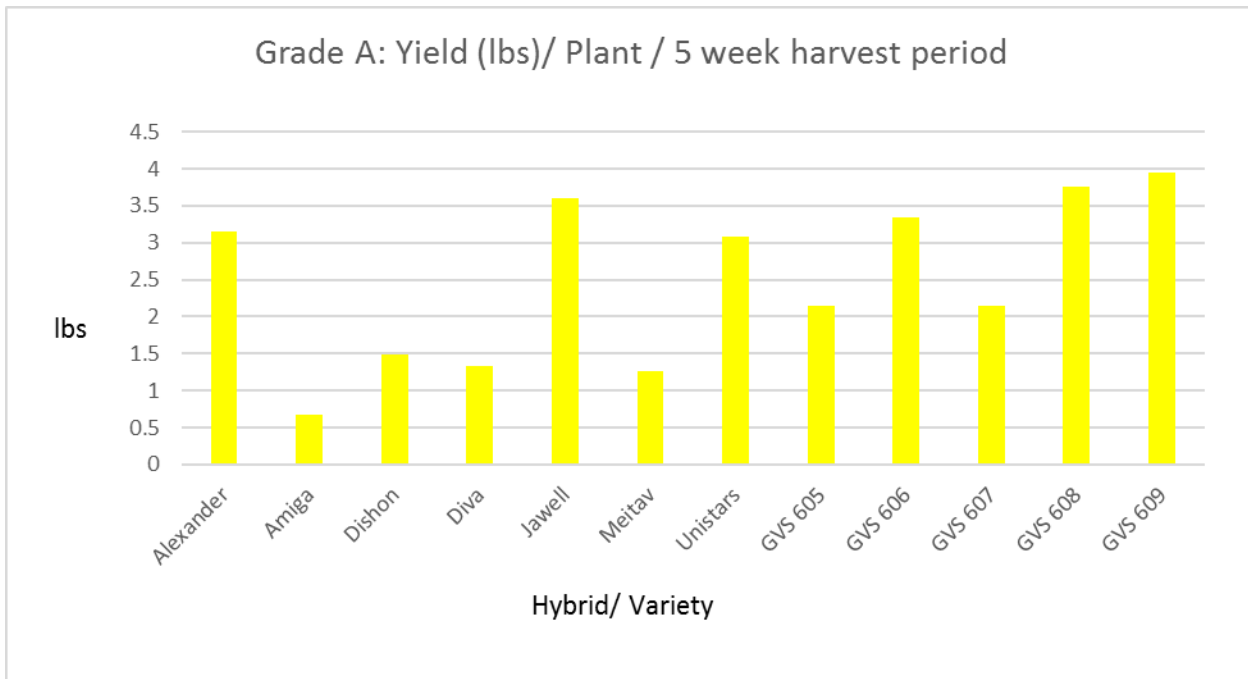
The economic success of food crop producers relies on the growers' ability to adapt farming principles and practices to integrate the latest technology and research developments. Oahu CES establishes critical on-farm field experiments in conjunction with edible crop growers to tackle priority crop production issues that strive to improve productivity and profitability. We understand that time is critical in this industry and any crop production managerial decisions must reflect time and cost efficiency. Therefore, please find below a summary of a recent field trial evaluating different varieties of Persian cucumbers due to increased interest and popularity in the market place.

A cucumber field trial was conducted under greenhouse culture at the Poamoho Research Station in Waialua, Oahu. Seeds were solicited and secured from De Ruiter, Golden Valley, Hazera and Johnny's Select Seed Company. A total of 12 varieties/hybrids were evaluated in this study.

The cucumbers were drip irrigated, planted on January 27, 2014 and harvest began on March 27, 2014. Harvest was conducted every other day. Harvest was terminated on May 2, 2014 (after 5 weeks of harvest). Plants were trellised using "T"-posts and cucumber netting. The organic fertilizer, Sustane 4-6-4 fertilizer was applied at the rate of 300 lbs. per acre on March 12 and 26, 2014. A supplemental application of a complete fertilizer (16-16-16) was applied at the rate of 150 lbs. per acre. One application of an organic insecticide was utilized to maintain thrips populations below economic threshold levels.

Due to the limited space under the screen house, the trial was not replicated. The screen house was the limiting factor in the number of plants / treatment as it provided a physical, non chemical barrier against fruit fly and pickleworm pests. Varieties were planted in 20 feet plots (21 plants maximum). Production data is presented based on yield per plant values.

Fruit from the selected varieties in the trial had a dark green color, crisp and pleasant fresh cucumber taste based on testimonials. Overall, Jawell and Unistars were early yielders compared to the remaining varieties. Unistars had short dark green, glossy fruits compared to others in the trial. In summary, Jawell, Unistars, Alexander, and GVA hybrids stood out among the varieties based on its horticultural characteristics and production data.





Marketable yields for UH cucumber varieties is estimated at 37,000 to 64,000 pounds / acre. However, slicing cucumbers averaged 20,000 pounds / acre with 6,000 plants / acre (Valenzuela, Hamasaki and Fukuda, 1994). Utilizing a moderate yield of 3 pounds of Persian cucumber per plant with 6,000 plants / acre, a grower can extrapolate that they may reap an estimated 18,000 pounds / acre. A formal economic assessment may help growers determine if these Persian type fruits are worth the investment as a commercial agricultural crop. Niche crop pricing and marketing may also help growers reap a higher price per pound in the marketplace.

1. De Ruiters Seeds (Jawell and Unistar)
800 N. Lindbergh Blvd.
St. Louis, MO. 63167
Phone: 1-314-694-1000
2. Golden Valley Seed (GVS 605, GVS 606, GVS 607, GVS 608, GVS 609)
202 E. Main St.
El Centro, CA. 92243
Phone: 1-760-337-3100
Goldenvallyseed.com
3. Hazera Seeds Inc. (Alexander, Dishon, Meitav)
6601 Lyons Rd. Suite H- 10
Coconut Creek, FL. 33073
Phone: 1-954-429-9445
office@hazersinc.com
4. Jonny's Selected Seeds (Amiga and Diva)
P.O. Box 299
Waterville, MA. 04903
Phone: 1-877-564-6697

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