

### Abstract:

Demand for locally and, often, organically grown specialty commodities appears to be increasing among Ohio's large multi-ethnic population. Yet, few farmers are equipped to take advantage of these markets. This report describes the latest in a series of studies designed to identify and help overcome obstacles to profitable specialty commodity production and marketing in Ohio, including using organic methods. In 2000 and 2001, a participatory network of scientists, extension professionals, farmers, consumers, and professional produce buyers was employed to help evaluate conventionally and organically grown bitter melon and Asian eggplant cultivars. Additional related studies were completed on edamame-type soybean, huitlacoche (corn smut), and sweet potato. Selected results for studies dealing with bitter melon and eggplant are presented here. Duplicate plots containing 2-8 varieties of organically- and conventionally-grown bitter melon and eggplant were established at the OSU South Centers in Piketon, OH and arranged in randomized complete block designs with four replications. Additional plots were established on the farms of grower-cooperators. Crop yield and quality were recorded after 5-12 harvests per season for each crop. Observations of plant and crop development and pest and disease pressure were also taken at regular intervals. Eggplant fruit were evaluated by professional produce buyers at several locations using hedonic scales and by consumers using commodity recognition and willingness-to-buy oriented questionnaires. Bitter melon and eggplant marketable yield was affected by harvest date, regardless of management type. Total seasonal marketable fruit number and weight was similar in both bitter melon cultivars in both studies. Marketable eggplant fruit number and weight, but not bitter melon fruit number, tended to be higher in conventionally-managed plots, compared to transitional- organic plots. The number and weight of marketable eggplant fruit differed among cultivars, although fruit number was consistently high. Recognition of Asian-type eggplant cultivars with fruit that differed from the common large, pear-shaped, purple-colored ideotype was poor among the widest consumer audience. But, the same cultivars were preferred in ethnic markets and outlets.