

Pumpkin Cultivar Evaluation in Ohio

Bob Precheur, Mac Riedel, Andy Wyenandt, Jim Jasinski, and Celeste Welty.
Dept. of Horticulture and Crop Science, Departments of Plant Pathology Southwest Extension
IPM, and Entomology, OSU Columbus.

Introduction

Pumpkins are now the third largest fresh market vegetable in OH with nearly 5,000 acres in production. Pumpkins account for 10 to 40 % of annual gross income for some vegetable producers. It is important for our producers to use cultivars that consistently produce high yields of quality fruit. Of equal importance is to incorporate new cultivars into the program that provide good disease tolerance in order to reduce costs and maintain high quality production. This project was supported in part by a research grant from the Ohio Vegetable and Small Fruit Research and Development Fund.

Methods

Twenty three cultivars were evaluated at the OARDC Western branch in South Charleston, OH. Prior to planting, 100 lbs/A of actual N, P₂O₅ and K₂O was applied. Most plots were direct seeded on May 28, 2003 and transplants were used in remaining plots about 7-10 days later. Admire, for cucumber beetle and bacterial wilt control, was applied in the furrow at seeding. Pumpkin transplants were pre-treated with Admire prior to planting. Plots were 30 feet long with 10 feet between rows and 3 feet between plants in the row. Strategy was applied for weed control post planting but before crop emergence. The experiment was conducted as a randomized complete block design with 4 replications. Trickle irrigation was available for all plots but used only once, about 10 to 14 days after planting due to excessive rains which totaled over 40 inches for the season (see comment in results). A standard disease control program included the fungicides: Quadris, Nova and Bravo. A standard insect control program included Sevin XLR and Thiodan. Fruit were harvested the second and third week of September.

Results

In late August and early September, extremely cold and wet weather (5-8 Inches) caused rapid development of powdery and downy mildew. Most foliage was rapidly covered with powdery and downy mildew. Only varieties HMX2689 and HMX0683 had a foliar infection rating of 25 to 50%. There was an early season outbreak of Anthracnose and varieties were rated for foliar infection, see Table 1.

The best large sized varieties in terms of tons per acre were: Harvest Time, RPX0307, Dependable (ACX103), and Pro Gold 510. The largest average fruit size (> 27 lbs per fruit) was observed in varieties: Harvest Time, RPX0307 and Dependable. The best medium sized pumpkins were Gold Medal, RPX03509, HMX2689, RPX03517 and HMX0683.

New and appealing small varieties with an average fruit size from 1 to 4 pounds were HMX 2690, HMX 3693, HMX 5682 and RPX03102. Features include dark green handles, good orange color and a hard fruit rind.

Individual pictures of each variety plus comparison views among varieties are available at the VegNet website:

<http://vegnet.osu.edu>