

Asparagus Cultivar Trial

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Introduction

As local food production has increased in Iowa, there is renewed interest in perennial vegetable crops such as asparagus. The purpose of this multi-year study is to compare the performance of modern male hybrid asparagus cultivars with popular older cultivars under soil and environmental conditions at the ISU Northeast Research and Demonstration Farm, Nashua, Iowa.

Materials and Methods

The asparagus trial consists of five cultivars, including *Martha Washington*, *Purple Passion*, and the male hybrids *Jersey Supreme*, *Jersey Knight*, and *Jersey Giant*.

The trial was initially planted in May of 2009. Additional crowns to fill out the planting were planted in April 2010. There are four randomized replications of each cultivar with two rows of five plants in each rep. Rows are four ft apart and plants within rows are one ft apart.

Results and Discussion

It generally takes at least five years for an asparagus patch to become fully established. Therefore, the data in 2013-2014 may not be representative for potential yield in a mature planting. In the two most recent years, *Purple Passion* had the highest yield and the largest spear weight. All five cultivars increased yield and spear size in 2014, and overall yield in the trial increased 23 percent from 2013. *Jersey Knight* had the greatest increase from 2013 to 2014 in weight (1,750 lb/acre), although still having the second largest spear size.

Table 1. Asparagus cultivar yield for 2013-2014.

| Cultivar | 2014 yield lb/acre | 2013 yield lb/acre | 2014 avg. spear weight (gm) | 2013 avg. spear weight (gm) |
|----------------|-----------------------|-----------------------|-----------------------------------|-----------------------------------|
| Purple Passion | 8,260 | 6,790 | 25.4 | 23.2 |
| Jersey Knight | 7,160 | 5,410 | 23.4 | 19.8 |
| Martha Wash. | 6,670 | 5,150 | 19.9 | 16.6 |
| Jersey Supreme | 6,720 | 6,180 | 17.6 | 16.2 |
| Jersey Giant | 4,440 | 3,480 | 20.6 | 17.4 |