

## Asparagus Cultivar Trial

### RFR-A16106

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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

All five cultivars decreased yield and spear size in 2016 over the average of 2014-15. This may be the result of an excessively wet winter of 2015-16 causing decline of some of the plants. Harvesting in 2016 also was more frequent at 17 times vs. an average of 11 times in 2014 and 2015, and may have contributed somewhat to smaller spear weight. In 2016 (6,780 lb/acre), and for the three-year average of 2014, 2015, and 2016, Purple Passion had the highest yield (8,680 lb/acre). It also had the largest spear weight in 2016 (20.6 gm) and over the three-year average (25.2 gm). Jersey Knight had the second highest yield (8,040 lb/acre) and spear weight (22.3 gm) over the three years. Because there seems to be some plant decline, possibly due to excessively wet weather over the last couple of years, this is the final year of data for this trial.

**Table 1. Asparagus cultivar yield for 2014-2016.**

Cultivar	2016 yield lb/ac	2014-16 lb/ac	2016 average spear weight, gm	2014-16 average spear weight, gm
Purple Passion	6,780	8,680	20.6	25.2
Jersey Knight	6,700	8,040	16.8	22.3
Jersey Supreme	6,400	7,800	13.8	17.4
Martha Wash.	5,990	7,120	14.0	18.5
Jersey Giant	4,700	5,030	16.9	21.3