

## Peach and Pear Cultivar Trial

### RFR-A1348

Patrick O'Malley, extension commercial  
horticulture field specialist  
Nick Howell, farm superintendent

### Introduction

As local food production has increased in Iowa, there is renewed interest in tree fruit such as peach and pear. The purpose of this multi-year study is to compare the performance of peach and pear cultivars under soil and environmental conditions at the Horticulture Research Station, Ames, Iowa.

### Materials and Methods

On May 11, 2011, 72 peach and pear trees were planted at the ISU Horticulture Research Station (HRS). Unless otherwise noted, each cultivar had five trees. There were five peach cultivars, five Asian pear, three European pear plus three additional European pear cultivars that only had a combined seven trees.

Trees were pruned in March 2012 and 2013. For all three years the orchard was weeded and sprayed for insect and disease control, and

wire cages were put on for protection from rabbits. On May 22, 2013, 58 additional trees were planted bringing the total to 130. These consisted of two peach cultivars, seven Asian pears, two European pears, plus three trees of another European pear. See attached plot plan for the project, which shows name and placement of each of the cultivars. In June 2013, peach had fruit thinned.

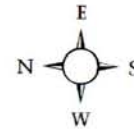
### Results and Discussion

It generally takes at least five years for pears to get a meaningful harvest. Peaches can have a harvest in the third year, but a more representative yield would be achieved in later years. The yield data in 2013 on peaches is preliminary, and future years should be recorded to get a more accurate measurement. Table 1 has cumulative total for all five trees of each peach cultivar. Contender had the most number of fruit and the highest total weight yield, but the second smallest fruit size. PF24C and PF25 had good fruit numbers, total weight yield, and fruit size. PF23 had the largest fruit size, which was probably due to the limited number of fruit on the tree.

**Table 1. Peach yield for 2013.**

Cultivar	Yield (kg)	Fruit (no.)	Average fruit size (kg)
Contender	75.55	773	.100
PF24C	67.22	633	.106
PF25	66.12	647	.102
Redhaven	45.15	493	.090
PF23	20.83	170	.123

### Pear and Peach Planting Horticulture Research and Demonstration Station



Row #

1	13	13	13	13	13	14	14	14	14	14
2	15	15	15	15	15	16	16	16	16	16
3	17	17	17	17	17	12	12	12	12	12
4	8	8	8	8	8	9	9	9	9	9
5	10	10	10	10	10	11	11	11	11	11
6	4	4	4	4	4	5	5	5	5	5
7	6	6	6	6	6	7	7	7	7	7
8	1	1	2	2	2	3	3	3	3	3
9	18	18	18	18	18	20	20	20	20	20
10	19	19	19	19	19	21	21	21	21	21
11	22	22	22	22	22	23	23	23	23	23
12	24	24	24	24	24	25	25	25	25	25
13	26	26	26	26	26	27	27	27	27	27

Date Planted:  
5/11/2011

Date Planted:  
5/22/2013

European Pears

- 1) Shenandoah \*
- 2) Sunrise \*\*
- 3) Harrow Delight \*\*\*
- 4) Harrow Sweet \*\*\*
- 5) Moonglow \*
- 6) Bartlett \*\*
- 7) Comice \*\*\*
- 20) Kieffer \*\*

Peaches

- 13) Contender \*
- 14) Redhaven \*\*
- 15) PF25 \*\*\*
- 16) PF23 \*\*\*\*
- 17) PF 24c \*\*\*\*
- 18) Intrepid \*\*
- 19) Encore \*\*

Asian Pears

- 8) Hosui \*
- 9) Olympic \*
- 10) Shinko \*
- 11) Yoinashi \*
- 12) Shinsui \*
- 21) 20th Century \*
- 22) Chojuro \*
- 23) Shinseiki \*
- 24) Kosui \*
- 25) Atago \*
- 26) Niitaka \*
- 27) Yoinashi \*

10 foot spacings within rows  
16 foot spacings between rows

Pear Rootstocks

- \* Betulaefolia
- \*\* OHxF 97
- \*\*\* OHxF 87

Peach Rootstocks

- \* Bailey
- \*\* Lovell
- \*\*\* Tenn Nat VF281.1
- \*\*\*\* Halford