

Department of Zoology  
Pennsylvania State College

# OREGON AGRICULTURAL EXPERIMENT STATION.

BULLETIN No. 7.

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## HORTICULTURE.

COMPARATIVE TESTS OF SMALL FRUITS  
AND VEGETABLES.

FIRST RESULTS.

FOR OCTOBER, 1890.

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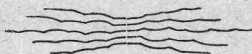
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## HORTICULTURE.

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### *Comparative Tests of some Small Fruits and Vegetables*

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GEORGE COOTE.

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The following paper gives only the first results of experiments planned to give the farmer and fruit grower of Oregon, or rather of the Willamette valley, information to guide him in selecting the varieties which may be expected to do best on the valley lands.

During this fall, preparations are being made to carry these experiments farther and to embrace many more kinds of fruit and vegetables.

Experiments are also in course of being carried out in testing the results of grafting the favorite fruits, now being so extensively planted in western Oregon, on to different stocks from those hitherto used.

## A COMPARISON OF VARIETIES OF TOMATOES AS TO YIELD.

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Of the tomatoes in the following list, twelve plants of each were grown. The seeds were sown in "pans" in the propagating house, March 25th, and when of proper size were put out into boxes. After they had gained sufficient strength they were placed in cold frames to harden off before planting in the open ground. The soil was a basaltic loam which was well prepared before planting. The manner of preparing was by plowing out a furrow thrown out each way and a liberal coating of stable manure; then with the plow, these furrows were thrown back over the manure, burying it about six inches deep. On May 16th the ground was harrowed down and the plants set on each furrow. Owing to very dry weather the plants did not make much headway for four weeks; after June 21st, they began to grow rapidly.

All of the first blooms dropped off and did not form fruit until after the sun was somewhat obscured by the smoke from the mountain fires. After the plants had set all the fruit we thought they could well carry, they were cut back to one joint above the fruit. Check plants not cut back, were left to see which treatment produced best results. We found that the plants cut back ripened their fruit more evenly and the fruit was much larger.

The soil was kept well cultivated during the season and the plants—which were five feet each way—were allowed to lie on the ground.

A comparison of each variety will be found in the following table:



Source of Seed.	Varieties.	Number of Plants.	Date of Planting.	Date of Blooming.	Date of First Gathering.	Total Weight of Fruit.	Weight of Green Fruit at Frost.	Rate per cent. of Rot.
Ogn. Ex. Station	Yellow Plum . . .	12	May 21	Jun. 24	Aug. 15	lbs. oz. 13- 9	lbs. 42	
Thorburn . . . .	Early King Humboldt . . . . .	12	" 16	" 24	" 17	23- 2	65	
" . . . .	Puritan . . . . .	12	" 15	July 7	" 29	99-	30	
Ogn. Ex. Station	Turner's Hybrid	12	" 10	Jun. 22	" 30	144- 8	39	
" " "	Carter's Seedless	12	" 10	" 26	Sept. 9	84- 2	32	
Salzer . . . . .	Perfect Gem . . .	12	" 15	July 4	" 2	68- 4	28	
Ogn. Ex. Station	100 Days . . . . .	12	" 20	" 1	" 2	99-	40	8
" " "	Livingstone's Favorite . . . . .	12	" 16	" 2	" 8	63-10	58	
Thorburn . . . .	Optimus . . . . .	12	" 10	Jun. 28	" 10	84-	40	
Ogn. Ex. Station	Haines' 64 . . . .	6	" 10	July 3	" 10	21- 4	47	
Thorburn . . . .	Volunteer . . . .	12	" 15	" 3	" 25	53-	43	12
" . . . .	Improved Yellow	12	" 15	" 3	" 3	45- 4½	35	
Salzer . . . . .	Trophy . . . . .	12	" 16	" 2	" 10	86-	71	
Thorburn . . . .	Improved Queen	12	" 16	Jun. 30	" 9	88-	48	
" . . . .	Hovey . . . . .	12	" 21	July 3	" 10	111- 8	104	
Agr. Fort Collins	Acme . . . . .	6	" 16	Jun. 25	" 20	86-12	70	10
Thorburn . . . .	New Jersey . . .	12	" 20	" 29	" 4	89- 8	48	15
Ogn. Ex. Station	Paragon . . . . .	12	" 20	July 3	" 30	87- 8	90	
Thorburn . . . .	Ignotum . . . . .	12	" 22	" 4	" 22	100-12	77	
Ogn. Ex. Station	Gen. Grant . . .	12	" 15	Jun. 27	" 20	43	93	
Salzer . . . . .	Morning Star	12	" 15	July 2	" 20	88-	70	

P. S. All varieties not specially noted are worthy of further test. We have tested "Turners hybrid" two successive seasons, and it so far has not shown any sign of rot.

## STRAWBERRIES, 1890.

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In the spring of 1889, we planted twenty varieties of strawberries as a beginning for testing the various sorts. The ground where the plants were set out had previously been plowed and sub-soiled and well drained with 2 in. tiling, 2 ft. 6 in. deep and 30 ft. apart. Previous to the tile draining it was impossible to cultivate for some time after heavy rains, while now, the ground dries off very quickly, after a day or two of good weather, in fact, as well as any land with the best of natural drainage.

The plants were set in rows 3 ft. apart and 18 ins. apart in the row. The growth during the first season was good. The land had not been manured, to my knowledge, for twelve years, nor has it received any manure as yet. The runners were kept off until July, then allowed to grow. These were afterwards cut off in the fall and planted. The fall plantings did much better than those planted in spring, as the former had well established themselves, before dry weather set in, thus enabling them to better withstand the hot summer sun.

Two rows of twenty-five plants each, were planted side by side, one, with a trowel so that the roots could be spread, and the other with a common dibble. In the row planted with great care, twenty-four plants grew, while in the other, all the twenty-five grew and were more vigorous than those planted with the trowel.

A new plantation has been set out consisting of two rows of each variety, with twenty-five plants in each row. One row intended to test on the single hill system, and the other on the matted system, both rows to have the same number of plants.

The crop was materially diminished by late frosts which cut off some of the early blooms, and owing to the dry weather in the spring, some of the fruit dried on the vines.

We have other varieties which were not received early enough to test this season, but will be reported on later. The names of the varieties are as follows: "Van Dieman," "Jucunda" and "Banquet."

VARIETIES.	Date of blooming.	Date of first picking.	Date of last picking.	Number of plants.	Weight of fruit.	REMARKS.
1 Warfield	Apr. 25	May 18	June 20	17	2- 9½	Productive; berry not large.
2 Glendale	" 28	" 26	" 18	14	2-13½	" good flavor.
3 Cumberland	" 28	" 26	" 14	9	1- 7	" a good berry.
4 Pearl	" 26	" 26	" 16	15	2- 5½	Berry large, long, handsome, good color.
5 May King	" 28	" 19	" 14	18	1- ¼	Fruit soft, good flavor, high color.
6 Pine Apple	" 29	" 28	" 17	13	1-14½	Strong grower; fruit firm; good flavor.
7 Burt	" 30	" 28	" 21	12	2- 7½	Productive; good quality.
8 Bomba	" 22	" 28	" 16	14	3- 6	Fruit firm; very acid.
9 Bubach	" 30	" 28	" 14	13	0- 3¾	Large berry; not good flavor.
10 Monmouth	" 28	" 27	" 14	11	0-15½	" " " " "
11 Dutter	" 22	" 28	" 15	7	0-11	Requires another trial.
12 Mammoth	May 2	" 28	" 14	13	1- ½	Fruit large; good berry.
13 Henderson	" 2	" 28	" 14	11	0- 6½	Not of much value this year.
14 Summit	" 1	" 31	" 13	13	0- 7½	Berry good size; highly col- ored.
15 Cloud	" 2	" 30	" 14	13	1- 2½	Resembles the Crescent Seed- ling.
16 Haverland	Apr. 30	" 31	" 16	16	2-14	Productive; easily injured by hot sun.
17 Jessie	" 20	" 28	" 13	13	1- 2½	Of little value.
18 Ohio	" 29	" 31	" 14	15	1 5	" "
19 Gandy	May 3	" 31	" 14	14	0- 4½	Late variety; berry firm.
20 Louise	" 3	May 31	" 6	13	1- 4	Large fruit; good quality.
21 Hampden	" 29	June 3	" 16	10	1- 7	Produce large amount of fruit; soon dries up on plant.

## A COMPARATIVE TRIAL OF PEAS IN 1890.

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We had sixteen varieties of peas in our trial garden but the dry season very much retarded the growth of all. Each variety occupied 50 feet of row on the white land of the Willamette Valley. The ground was plowed twice and well harrowed, and afterwards furrows were plowed to admit of manure, the latter method being used to make the most of it.

This plan would do very well in wet seasons, but will not answer in such dry summers as we generally have in Oregon, as the ground dries out too fast in those seasons.

The seed was sown in the furrows 3 ins. deep on April 14th, and the ground was kept well cultivated during the growing season. Each variety was noted as it came in bloom and notes also taken as to the first gathering of edible peas and also when the full crop came to marketable maturity and ripening.

Below will be found a comparative table :



## PEAS

Source of Seed.	VARIETIES.	Date of planting.	Number of days till blooming.	Number of days till edible maturity.	Number of days till maturity.	Number of days till ripening.
Oregon Ex. Station	Carter's Anticipation	Apr. 12	61	81	89	101
" " "	Alaska	" 12	40	53	57	84
" " "	Tom Thumb	" 12	44	50	80	90
" " "	Carter's Telephone	" 12	55	71	78	80
" " "	Carter's Stratagem	" 12	57	77	81	90
" " "	Eugenie,	" 12	40	55	62	
Northrup & Co	Carter's Anticipation	" 14	58	75	81	87
Oregon Ex. Station	American Wonder	" 14	40	47	57	80
" " "	Little Gem	" 14	39	71	77	86
W. Allen, Portland Or.	Veitches Perfection	" 14	30	73	81	91
" " "	First and best	" 14	60	53	60	73
" " "	Champion of England	" 14	60	84	91	110
" " "	Everbearing	" 14	58	72	78	99

# REMARKS.

NAME OF VARIETY.	Style of vine.	Height of vine.	Length of pod.	Number of peas in pod.	Shape of pod.	
Alaska	Slender.	15 in.	2¼ in.	5 to 7	Straight.	Well filled; not large; good quality.
Carter's Anticipation	Stout branched	2 ft.	3¾ in.	8	"	Of good quality.
Telephone	Long jointed.	2 ft 6 in.	3 in.	5 to 8	Curved back- ward.	Well filled; good quality.
Tom Thumb	Stout.	8 to 12 in.	2 in.	4 to 6	Straight.	Very good quality.
Stratagem		2 ft.	3 in.	6 to 8	"	" "
Eugenie	Slender.	2 ft.	2⅝ in.		"	Fair quality.
American Wonder	Stocky.	10 in.	2 in.	4 to 6		Well filled; good quality.
Little Gem		10 in.	1½ in.	4 to 6		Vines dark blueish green.
Veitches Perfection	Branching.	2 ft.	2½ in.	6 to 8	"	Short jointed.
Champion of England	Sends out laterals.	3 ft.	2½ in.	6 to 7	"	Excellent quality; pod paired and single; stood dry season best; is a great cropper.
Everbearing	Branching.	18 in.	3 in.	4 to 6	Nearly straight	Good quality.

## RESULT OF CULTIVATION OF CAULIFLOWER.

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The seed was supplied by H. A. March, Fidalgo, Washington. The two varieties, "Snowball" and "Perfection," were sown in open ground, on March 1st, 1890, with an average temperature of 55 degrees. Vegetated, March 13th. Transplanted to permanent position on the 5th on ground fertilized with a light dressing of stable manure.

Snowball came into table use July 24th, heads measuring 6 ins. in diameter. Average height of plant 16 in. Received only one watering when first planted. Scarcely any rain fell during the summer, but with good cultivation the plants grew fairly well. The heads were close and very solid.

"Perfection" was equally good, with the same treatment. Both varieties are excellent for home use or for market. We have also a small patch of Veitch's "Autumn Giant" Cauliflower, that we are cutting from at this date and will continue to do so for about four weeks more. The plants were grown from seed supplied by Carter & Co., High Holborn, London, England. The heads are very uniform and solid, ranging from 10 to 14 in. in diameter. The seed was sown on March 5th, 1890, and planted out May 25th. They began to come into use for table July 20th and heads cut October 28th, average 7 lb., 7 oz. Carter's "Mont Blanc" resembles the Perfection in growth, but has somewhat larger heads, averaging 3 lb., 14 oz. For Autumn, Veitch's "Autumn Giant" cannot be excelled.

## RASPBERRY.

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We have at this date, Oct. 28th, 1890, growing out at the College grounds, "Turner's Raspberry," perfectly ripe and of good flavor, and very highly colored. We regret to say that we have but two plants of this variety, but shall propagate for a more extended trial as quickly as possible.