

**GARFIELD AND TRACER**  
**Alaska Type Peas**

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**Washington State University Pullman, Washington**

## **GARFIELD AND TRACER ALASKA TYPE PEAS**

Garfield and Tracer are dry pea varieties developed by U.S. Department of Agriculture plant breeders stationed at Washington State University and released in 1977 by WSU and the University of Idaho. Both peas outyield standard varieties and both have improved disease resistance. Both are also taller than the old varieties, an advantage in combining.

### **GARFIELD**

Garfield (WA 110-9) is a large-seeded, dry, edible green pea. It is expected to replace standard Alaska types in the dry pea producing areas of Washington, Oregon, and Idaho. In trials, Garfield has yielded 200 to 300 pounds more per acre than standard Alaska peas. The larger seed should improve the quality of split peas, the major use of dry peas produced in the Pacific Northwest. The large seed is also suitable for canning reconstituted dry green peas, another important use of Pacific Northwest dry peas.

**Characteristics.** Garfield is 3 inches taller than other Alaska type peas, which is an advantage in harvesting. The vines are semi-erect and nonbranching, with straight internodes. Garfield flowers at the fourteenth node, rather than the twelfth node as do most Alaska varieties. The flower stalks bear single or double flowers, which are white. The pods are straight, blunt-ended, and medium green, with six to seven seeds. Seeds are dark green, round, and smooth, with green cotyledons. The variety matures about one week later than other Alaska types.

**Disease Resistance.** Garfield resists fusarium wilt race 1, a potentially destructive disease of peas in the Palouse region. It is susceptible to races 2 and 5. Garfield is the same as other Alaska peas in resistance to powdery mildew, seed bleach, and susceptibility to mechanical damage. It is more tolerant to common pea root rot.

**Development.** Garfield was selected from USDA plant introduction line 244104 in 1970 by Fred J. Muehlbauer. Muehlbauer is a USDA Science and Education Administration plant breeder stationed at Washington State University, Pullman, Washington. Preliminary and advanced tests for yield and disease resistance were conducted from 1971 to 1975 in Washington and Idaho. The pea was named for the town of Garfield, located in eastern Washington's pea-producing area.

## TRACER

Tracer (WA 1582) is a small-sieve, Alaska-type, dry edible pea. It was released because of its higher yield and more uniform seed size, shape, and color. It has outyielded small-sieve Alaska types by nearly 50 per cent the past three years at three locations in Washington and one location in Idaho.

**Characteristics.** Tracer sets triple pods at one or more of the reproductive nodes, where other varieties usually set only one or two pods. The variety averages 6 inches taller than Lilaska and has four more nodes before the first flower. Vines are semi-erect, without branches and with straight internodes. Leaves are medium green, with medium wax and slight marbling. The leaves have two leaflet pairs. The flowers are white and usually borne in triples or doubles. The pods are straight, blunt-ended, and light green, with a smooth, dull surface. They contain an average of four to five smooth, dark-green, round seeds with green cotyledons. The variety matures about four days later than most standard Alaska types.

**Disease Resistance.** Tracer is tolerant to common pea root rot, one

**TABLE 1. AGRONOMIC CHARACTERISTICS FOR GARFIELD AND TRACER FIELD PEAS**

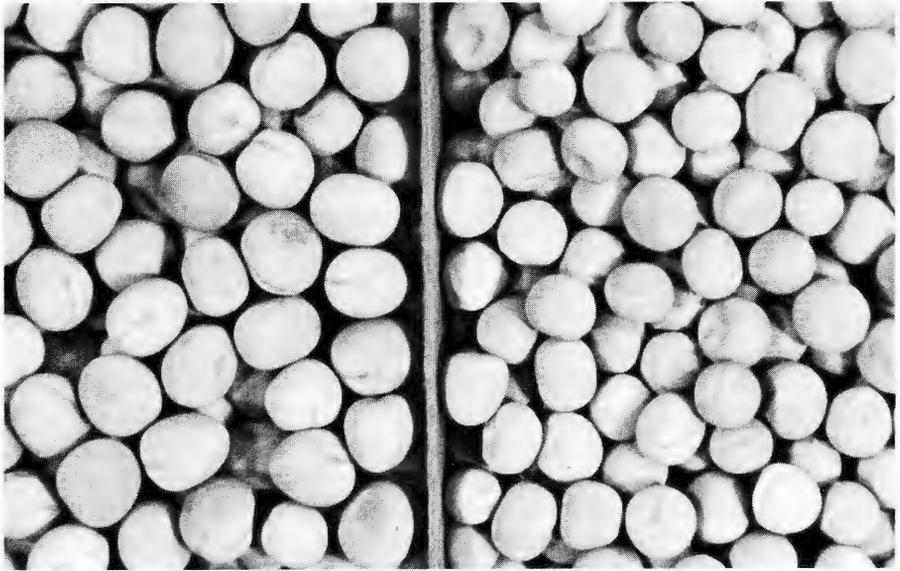
Variety	Wilt Reaction Race 1	Plant Height Inches	Nodes to First Flower	Mech. Damage %	Lab. Bleach Score**	Field Bleach Score**
GARFIELD	Resistant	33	14	34.9*	1.61*	0.95*
Alaska	Resistant	30	12	27.3*	1.01*	0.72*
TRACER	Resistant	31	13	37.1*	1.28*	1.49*
Lilaska	Susceptible	25	9	32.7*	1.68*	1.79*

\* Differences between the varieties are not great enough to be significant.

\*\* A score of 0 indicates no bleach; 4 indicates no green color remaining.

**TABLE 2. THREE-YEAR AVERAGE YIELDS (1973-1975) FOR GARFIELD AND TRACER COMPARED TO STANDARD VARIETIES**

Variety	Pullman, WA	Colfax, WA	Fairfield, WA	Genesee, ID
	Pounds/Acre			
GARFIELD	2598	1927	1688	1743
Alaska	2391	1650	1375	1607
TRACER	2113	1760	1305	1523
Lilaska	1360	1186	880	1079



GARFIELD

TRACER

of the most yield-limiting diseases of peas in the Palouse region. It is also resistant to fusarium wilt race 1.

**Development.** Tracer was selected in 1964. The selection was made by V. E. Wilson, USDA Science and Education Administration agronomist, from a mixed lot of Alaska "New Line" plants grown from seed supplied by the Canner Seed Corporation of Lewisville, Idaho. Tests for yield potential and disease resistance were conducted by Fred J. Muehlbauer, also of the USDA. The name "Tracer" begins with "tr" to suggest the triple pod characteristic.

COVER PHOTO: Garfield vines.

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