

New Asparagus.

two new strains of the Mary Washington produce tight spears of uniform color

G. C. Hanna

Two new strains of Mary Washington asparagus—numbers 499 and 500—have been developed by the Division of Truck Crops and released to growers for trial.

Spear size averages medium to large in comparison with other strains, with strain 500 averaging slightly larger than strain 499. Strain 500 also has been consistently earlier than strain 499.

The new strains are similar in appearance except that No. 499 has a slightly darker green color and is not as early as No. 500. Both strains have tight heads, are practically free from the purple overcast which is typical of most Mary Washington strains and have a uniform color to the ground line.

Under California conditions, both strains are relatively free from the enlarged nodes that are commonly found in many strains on colossal sizes. In general appearance the spears are more uniform, thus giving a better pack.

Although these strains are recom-

mended now only for trial, they are being used extensively in commercial plantings.

Data are not available on the actual acreage planted, but based upon the amount of seed distributed by the Experiment Station and by growers who first handled these strains, it is estimated that probably some 10,000 acres have been planted.

The present breeding program was initiated in 1929. As a basis for this work 159 plants were selected from a 400-acre field of two-year-old plants on a coöperating commercial ranch and moved to Davis in the fall of 1929. Production records were kept for 11 years on these plants.

A male parent, D37, proved to be exceptional in high yields of large, smooth spears with tight heads. It is the male parent of both the 499 and 500 strains.

The female parents of these strains—siblings of a cross of plants 55-48 and 4-34 from the breeding plots of a com-

mmercial breeding project—were grown on Ryer Island. An infection of *Phytophthora* root rot on the island interfered with production records. The quality of spears was similar to that of D37 strain.

No yield tests have been conducted with these strains. The many strains of Mary Washington with their wide levels of yield make it difficult to determine what a typical yield of this variety should be. Unless a number of strains were used in a comparison, the data would be questionable.

Such a test should be continued throughout the life of the bed. In this breeding work many strains have looked promising for the first few years and then have failed to give high yields over the normal life of the bed. The decline in spear size is more rapid in some strains than in others.

Since the oldest plantings of these strains have been harvested under commercial conditions for only four years, it is too early to predict how they will perform for the normal life of a bed. At the present time, the earlier No. 500 is preferred by most growers and shippers.

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The above progress report is based upon Research Project No. 906.

The new strains described were developed with the coöperation of the Cannery League of California.

Small Lots Thresher

compact and easily cleaned suitable for small sized seeds

Glen N. Davis

A machine that will thresh parts of a plant, individual plants, or a small number of plants and is particularly adapted to obtaining onion and carrot seed has been developed by the Division of Truck Crops.

In the threshing operation, the seed parts are broken from the stalks by hand and placed into the hopper which feeds them into a stationary rubbing table by a pulley-driven agitator.

The actual threshing of the seed is accomplished by an electrically driven roller-mounted plate.

To prevent seed injury, both halves of the rubbing apparatus are covered with corrugated rubber matting, and the amount of pressure exerted on the seed can be controlled by spring tension.

The rubbing action takes place in only one direction—away from the hopper. This motion engages additional seed at each stroke, gradually working it back from the hopper into the receiving container.

The machine is easily disengaged for cleaning, and is mounted on small wheels to facilitate moving from place to place.

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The above progress report is based upon Research Project No. 906.

A, arms controlling pressure; B, pulley; C, rubbing plate; D, rubbing table; E, driving arm; H, hopper; O, seed receptable; R, rollers.

