

VEGETABLE SECTION

NEW VEGETABLE VARIETIES FOR FLORIDA

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Since the publication of Florida Agricultural Experiment Station Bulletin No. 405 in 1944 and the paper on new varieties by E. C. Minnum published in the 1944 Society Proceedings, many new vegetable varieties, strains and hybrids have been found suitable for use in Florida under various climatic and soil conditions.

It is the purpose of this paper to bring these varieties and strains to the attention of the membership so that by trial plantings, they may benefit directly by adopting varieties better adapted to their individual needs. A suitable variety or hybrid can often give the increase yields that make the difference between profit and loss, can often spell the difference between high quality which is always in demand and the "drug-on-the-market" type of quality which can stand little competition. This extra quality is going to become more important as pre-packaging of vegetables gains in importance, and as the individual grower's identity becomes a part of the pack. Eye appeal may sell the first package, eye appeal plus taste appeal the repeaters.

More attention probably has been given to the producing, testing, and selecting of varieties and hybrids than another phase of vegetable production. The result has been that there are many varieties of most kinds of vegetables, and the production of new vegetable hybrid lines is increasing year by year. Only through the diligent testing of these varieties in many sections of the vegetable growing areas can those best adapted to Florida's varied soil and climatic conditions be found. In spite of the accumula-

tion of much information by numerous workers, the selection of the best variety for a given location remains a serious and difficult problem.

In addition to the importance of quality improvement and increased yields many of the new varieties also add crop insurance through disease resistance. This factor is especially important in the older growing areas where the land has become infected with the many soil inhabiting diseases, such as fusarium wilt, southern blight and pink rot. Varieties resistant to such diseases as potato late blight, which has been so destructive on tomatoes, early blight on tomatoes, frog eye spot on peppers, tip over of eggplant and others too numerous to mention are badly needed. Choosing the right variety from this standpoint is often more important to the grower than other factors, because if old, diseased land is to be planted, the choice of a variety resistant to the disease involved will assure him of a crop while the use of a susceptible variety would more than likely prove a failure.

A clarification of the terms, Variety, Strain, Hybrid and Lines, as used in most publications on vegetables might be of interest. Quoting T. O. Graham in *Vegetable Varieties & Hybrids* "There are basic differences between a variety and a hybrid. In a variety, the seed for the crop is produced through pollination which is not controlled. Trueness to varietal type is maintained by elimination of off types by selection. In a hybrid the seed is produced as a result of controlled pollination." The term strain is applied to a certain selection of a given cross propagated to maintain certain desirable characteristics; a line is usually a single plant selection from a cross from which additional single plant selections may be made or plants having undesirable char-

acteristics eliminated. A given line either soon becomes a strain or variety or is eliminated as undesirable. Hybrid vegetables often produce plants of great vigor and yield capacity, very uniform in size, quality, uniformity of maturity, and resistance to disease.

We can expect to see the use of hybrids increase in vegetable growing as methods of producing seed in quantity are perfected and cost of seed reduced. The hybrid has proven its worth in many kinds of vegetables, and no doubt new ones will be added to the list rapidly and may well add to the confusion already existing until testing has eliminated those unsuited for Florida.

New varieties or varieties listed as promising in the Florida Bulletin 405 found by field trials to be suited for commercial growing in various sections of the state are as follows:

Tomatoes.—Many new tomato varieties are in prospect for the near future. Through the regional office U. S. D. A. at Charleston S. C., seed of new varieties of vegetables are collected and sent to collaborators for testing. During the past 2 growing seasons some 70 varieties and strains of tomatoes were tested at the Vegetable Crop Lab., some in regular yield trials, others in preliminary observational trials.

Many of the new varieties in trials hold much promise, both as to adaptability and quality. However, seed is not available commercially, though a few new varieties may make their appearance during the next season. Until such time as yield tests have been concluded on these new varieties and recommendations made, it is advisable for growers to be cautious, making only small trial plantings rather than risking large acreages on an unknown variety.

RECOMMENDATIONS FOR THE FLORIDA WEST COAST

Ft. Myers section: Rutgers, which produces a tomato of excellent quality, firm and uniform. The vine is somewhat heavy

and light pruning might be indicated to produce better fruit set. Grothens Globe, earlier than Rutgers, but produces better yields of smaller sizes and poorer quality. These conditions may be due to cultural practices. Valiant looks promising in this area for early plantings.

Manatee-Ruskin area: For fall, Gothen Globe, Valiant and Stokesdale. Grothen Globe is the accepted standard in this area. Valiant is a heavy producer but, like Stokesdale, may produce small fruit. It is the earliest of the varieties tested. For soils badly infected with *Fusarium* wilt, a new variety U. S. 24 is suggested. U. S. 24 produces uniform fruit of better quality than Pan America. One or more varieties that are extremely resistant to *Fusarium* wilt and some of the common leaf spot diseases (not Late Blight) is expected to be released from the Vegetable Crops Lab. within a short time.

In the spring for the Manatee-Ruskin area, Rutgers and Grothen's Globe are still favorites. The new variety U. S. 24 is suggested for trial on wilt infested soils. Valiant does not produce sufficient leaf cover to protect fruit during late spring; it sun scalds even when staked.

For south Florida and the east coast section no change in recommendations is made in this paper. A paper to follow will discuss tomatoes for the East Coast section.

Pepper.—No new varieties have appeared; some work along hybrid lines is being undertaken by some of the seed growers, and one or more may appear in the market soon. Until such time as these have been tested, old line varieties are recommended according to the demand of the market.

Onions.—A new variety, Excel, a yellow Bermuda type, very uniform in size and shape, 10 days to 2 weeks earlier than other Bermuda types, is suggested for central and north Florida.

Texas Grano is more uniform and earlier than Grano, and is recommended.

Lettuce, Iceburg Type.—For early and late plantings the new variety Great Lakes is recommended. It is of uniform, medium size, resistant to bolting and tip burn.

For Midseason, Imperial 44 and 847 are still recommended.

Eggplant.—No new varieties have made their appearance. However, inquiries to Dr. Phares Decker of the Experiment Station at Gainesville indicate promise of a new eggplant variety soon, that will be highly resistant to "tip over."

Cantaloupe.—A trial planting of cantaloupe at the Vegetable Crops Laboratory last spring indicated that this crop has possibilities in the area extending as far south as Ft. Myers. New disease resistant varieties and new organic fungicides and insecticides which are safe to use on cantaloupe add to the crop's possibilities.

Varieties found promising were Smith's Perfect, Texas No 1, and Burrell's No. 45. Smith's Perfect, though rather late maturing, proved most resistant to both Powdery and Downy Mildew.

Pole Beans.—A new variety, Blue Lake, has been grown very successfully in West Florida. For the Manatee-Ruskin area McCaslan, U. S. No. 191 and U. S. No. 3 are recommended.

Cucumbers.—Tests during the past two seasons indicate that several new Downy Mildew resistant varieties produced at the South Carolina Experiment Station by Dr. W. C. Barnes and co-workers hold much promise. In yield tests during the past 2 seasons these lines yielded significantly better than any of the accepted commercial varieties in the planting. As a matter of fact, some of the commercial varieties died

without producing a single marketable fruit, while others produced only a few.

The variety Puerto Rico 39 produced more fruit than the S. Carolina strains but the fruits were shorter and not as good in quality.

Burpee Hybrid, maturing later than either the P. R. 39 or the South Carolina strains produced the highest yield. This variety produces beautiful long medium dark green fruits which like the P. R. 39 have a tendency to "flecking" (a tiny white specking in the skin).

One of the S. Carolina strains will be available probably for spring planting in Florida and will be known as "Palmetto." It is highly recommended. Of the regular commercial varieties, the recommendation remains the same, except that the variety Marketer has been accepted by most growers in the Wauchula, Manatee, Ruskin area and is planted extensively.

Sweet Corn.—For the Manatee-Ruskin area, recommendations would include Ioana, Golden Cross Bantam and Ill. Golden No. 10. Of the newer hybrids tested, Seneca Chief, Erie, Oto and Golden Grain produce high yields of excellent quality. Seneca Chief produces a medium sized ear well filled to tip, of excellent flavor, a week to 10 days earlier than Ioana. Golden Grain has same maturity time as Golden Cross Bantam, produces a larger ear which is very uniform.

In the Gainesville area Golden Security, Tri State, Oto, Erie, Victory, Golden, Ioana, Seneca Chief and Ill. Golden produced the best yields in the order given. Trial plantings of these varieties are recommended before large acreages are planted to determine variety best suited to growers particular conditions.