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# Idabelle

*A New Sweet Pepper*



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His work has been in the fields of plant breeding and cultural studies with vegetable crops.

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UNIVERSITY OF IDAHO  
PARMA BRANCH EXPERIMENT STATION

# Idabelle, A New Sweet Pepper

R. F. Foley

The adaptation of the varieties of a vegetable crop to an area has an important bearing on whether that vegetable crop can be grown profitably in the area. A program of crop improvement designed to produce horticulturally improved and disease resistant vegetable-crop varieties particularly suited for growing in Idaho has produced varieties of several crops.

Idabelle, a new sweet pepper, has been developed by the University of Idaho to help fill the need in Idaho for a better pepper variety.

Although Idabelle is well adapted to production in Idaho as a market garden variety, it is not suited for home-garden production for two reasons. First, the concentrated set of fruit means that all of the peppers are ready for use at one time; and, secondly, because it is not resistant to the fusarium wilt so prevalent in home gardens of the state.

## PARENTAGE

This new pepper is the product of a breeding program started in 1957 by the University's Department of Horticulture at the Parma Branch Station. The parental material was selected and the initial cross was made in 1958.

The parents of Idabelle are a single plant selection from California Wonder and a single plant selection from Plant Introduction line number 206949. This line was obtained from the Plant Introduction Station at Experiment, Georgia.

The first generation ( $F_1$ ) was raised in the greenhouse and in 1959 the ( $F_2$ ) seed produced was planted in the field. From this material another single plant selection was made. In the following generations single plant selections were made in the field for parent materials, cuttings were rooted, and seed for the succeeding generation was produced in the greenhouse. Three lines selected during the fifth generation were combined for release as Idabelle.

## DESCRIPTION

**PLANT TYPE.** The plants of this new variety are dwarf in growth habit and seldom above 18 inches in height. The main stem branches close to the ground line and this gives rise to the low, spreading but compact appearance of the Idabelle plant.

The leaves are long and broad and, since they are combined with the compact growth habit, good protection is given to the fruit so that sunscald is seldom a problem.

During the developmental period of this pepper all brittle plants were rejected for use as parental material. The Idabelle plant then is, in general, tough and resistant to mechanical damage. However, some brittle plants are still to be found in the progeny of this variety.

**FRUITING HABIT.** The fruit set of this variety is concentrated into a very short period of time on a compact plant. This fruiting habit is illustrated in the cover picture. It is an entirely new fruiting habit for a pepper variety. The plants produce from 5 to 9 fruit with an average production of 6 fancy fruit per plant. Usually all peppers on the plant can be picked at one time.

It is apparently normal for this variety to produce no blossoms during the period between the first blossom flush and the time when the resulting fruit reach the mature green stage. When this stage is reached, a new fruiting cycle is started. Blossom production during this second cycle seems to be a more or less continuous process.

It is not known at present whether this cessation of blossom production during the period in which the fruit is maturing is a physiological response to the heavy initial fruit set or a response to the photoperiod.

**FRUIT.** The fruit of Idabelle are large in size, thick of flesh, and of excellent quality. The normal number of lobes is 4 but the peppers on a single plant may have 3, 4, or 5 lobes.

The fruit are typically somewhat longer than they are wide. In our 1962 trials the average weight of all the fruit picked was 7.7 ounces. This is heavier than the fruit of any other variety in our trials. The fruit separate from the plant very easily.

**PRODUCTION.** The number of fruit is limited by the fruiting habit of the variety but the fruit produced is remarkably uniform in size. The uniformity of the fruit when combined with the thick flesh and heavy weight of the individual fruits produces a very satisfactory yield.

Table 1 shows that Idabelle produces as well as other varieties in commercial production but no better.

**MATURITY.** In the 1962 growing season, 10-week-old transplants placed in the field June 1 were ready to pick August 6. Other comparable varieties grown in our trials were not ready before August 14. This trend has been noted in other years. Under our conditions, Idabelle has been consistently a little earlier than other commercial varieties.

**RESISTANCE TO DISEASES.** The plant-breeding program that produced this new variety was initiated to produce varieties resistant to the curly top disease so prevalent in the intermountain west.

At no time has this disease affected more than 2 percent of the plants in this variety. This is true in spite of the fact that every attempt was made to expose the plants to virulent vectors of the disease. However, no knowledge is at hand as to its ability to resist this disease under epiphytotic conditions.



Typical fruit of the Idabelle pepper variety.

Idabelle is not resistant to the fusarium wilt disease so prevalent in Idaho. Individual plant selections that appear to possess this needed resistance have been made from this variety.

Although no effort has been made to protect the plants of this variety from tobacco mosaic, this disease has not been noticed during the breeding program. However, no claim of resistance is made.

No attempt has been made to establish whether or not Idabelle is resistant to diseases not common in this area.

**Table 1. Comparative yields and weights of some competitive pepper varieties. Parma, Idaho, 1962.**

Varieties	Total marketable fruit/acre bu. (25 lbs.)	Average weight of individual fruits ounces
Idabelle .....	427.3	7.7
California Wonder .....	413.8	5.3
Florida Giant .....	470.0	5.7
Rio Wonder .....	316.5	6.1

## DISCUSSION

Idabelle, though but average in yielding ability may find a place in commercial production for the fresh market because of its other qualities.

Its very heavy early production of high quality and grade fruit is of importance, but the concentrated set of fruit and the fact that these fruit are all ready to pick at one time is a new characteristic in a pepper variety. Mechanical picking of this variety is a distinct possibility.

The disease resistance of this variety is unknown, for many of the diseases affecting peppers are not found in Idaho. It is hoped that the possibility of stripping this variety during a single picking will enable this variety to produce well under adverse conditions because of the shortened production season.

## SUMMARY

The fruit of Idabelle is large in size, thick of flesh, and of excellent quality. The plants are dwarf in size, low and spreading, but compact in appearance.

The fruit set is concentrated into a short period of time and usually all fruit are ready to pick at once.

In Idaho Idabelle comes into production slightly earlier than other commercial varieties.