

## **FL 16.78-109 Strawberry**

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### **Summary**

**FL 16.78-109 is a new strawberry that is white with red achenes and a pink blush when fully ripe. It has a unique low-acid flavor. Growers are encouraged to market this fruit as a unique product, both at the food service and retail levels. This variety has a robust plant and broad disease resistance, and should be adaptable to different soils and growing styles.**

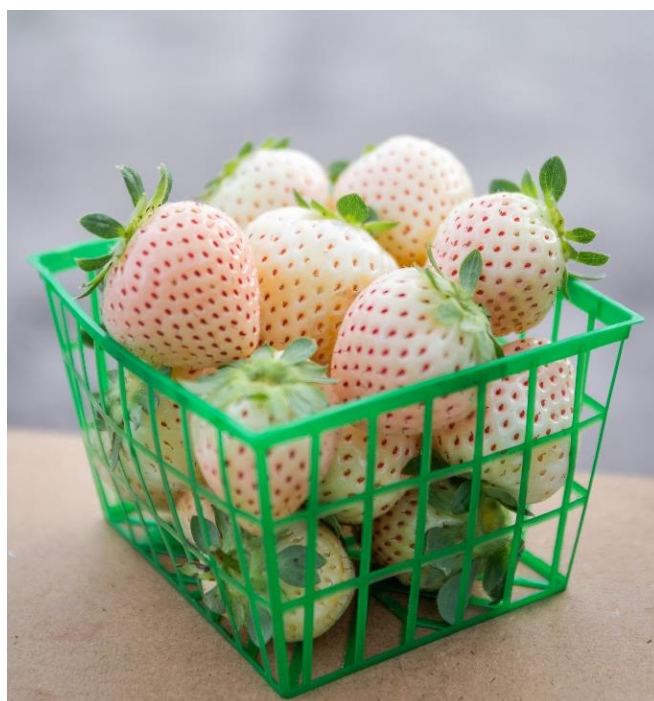
### **Characteristics**

FL 16.78-109 is a new short-day strawberry that is in the release process at UF/IFAS and is expected to be fully commercialized during the 2021-2022 season. Approximately 7 acres of trial plants are expected to be available during the 2020-21 season to growers coordinating with the FSGA on a joint licensing and marketing model.

This variety originated from a cross between two unreleased selections, FL 12.90-53 (female parent) and FL 14.29-1 (male parent). The white color was sourced from seed obtained in Japan, which were grown and bred with UF germplasm to produce white color in a genetic background adapted to the Florida environment. This source comes through the male parent.

FL 16.78-109 has very consistently conical fruit shape, but with smaller size than typical red strawberry varieties (Fig. 1). When the achenes turn red and a pink blush develops on the sun-side of the fruit, it is ripe and ready to eat. The average soluble solids content (°Brix) of the fruit is similar to 'Florida Brilliance', but a lower acid level creates a sweet taste, and a unique apricot/pineapple aroma gives this variety a truly unique flavor. The yield of FL 16.78-

109 is about ¾ of the standard red-fruited varieties. Therefore, special packaging and pricing will be necessary in order to make this product profitable.



**Figure 1.** Fruit of FL 16.78-109 from GREC trials in February, 2020.

### **Disease Resistance**

FL 16.78-109 has a disease resistance profile that is balanced, without any extreme susceptibilities (Table 1). FL 16.78-109 is slightly more susceptible to anthracnose fruit rot than 'Florida Brilliance'. On the other hand, it appears slightly less susceptible to Phytophthora root rot and Botrytis fruit rot than 'Florida Brilliance'. Its robust plant is probably a factor in its apparent tolerance to root and crown rot diseases.

**Table 1.** Disease resistance profile of FL 16.30-128 compared to 'Florida Brilliance' (R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, HS = highly susceptible).

| Disease                  | Brilliance | 16.30-128 |
|--------------------------|------------|-----------|
| Anthracnose fruit rot    | R          | S         |
| Angular leaf spot        | MS         | MS        |
| Botrytis fruit rot       | S          | MS        |
| Charcoal rot             | MR         | MR        |
| Colletotrichum crown rot | S          | MR        |
| Phytophthora root rot    | S          | MS        |
| Powdery mildew           | MR         | MR        |

## Management Recommendations

FL 16.78-109 should be planted late in the planting period, between Oct 15 and Oct 25, in order to maximize fruit size for this variety. While there may be less mortality for this variety from Phytophthora root and crown rots compared to 'Florida Brilliance' and Sensation®, the variety still appears to have some susceptibility to this disease, and phosphite products and metalaxyl products should be applied as needed.

FL 16.78-109 appears to have a similar bush size to 'Florida Brilliance' though slightly more dense, and will probably require similar fertilization rates. In order to provide more precise recommendations, fertilization trials will be underway during the 2020-21 season.

## Nursery Considerations

Plants should be available from licensed nurseries beginning during the 2021-22 season. Clean stock will be distributed to nurseries supplying Florida growers on an equitable basis.

Runnering of FL 16.78-109 seems to be similar to Sensation®, and breeding nursery trials have produced high runner yields. Optimal planting densities and other nursery growing practices are likely to be similar to the current commercial standards.

## Contact

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