

## Vertical Growing Technology

### Highlights

- **Strawberry Variety Update**
- **Lettuce in Vertical Towers**

See Volume 1 Issue 4 for other tests

### Strawberry Variety Update

#### New berries look good so far!

We have been really pleased with the initial results of a new day neutral strawberry variety, **Pacific**. It is too early to tell for sure how it will fare in hot and humid southern climates, but one commercial grower in Starke, FL had about two acres. He was pleased with how early it produced, and the size, of the fruit. He was not so pleased with the taste. He said it wasn't as good as **Sweet Charlie**, but better than **Selva**. He did indicate that he made money with this variety because it was early and large. He planted this variety as a fall-winter crop.

At **Verti-Gro** we planted 1,000 **Pacific** as a spring crop (Feb19). We had lost some plants, due to the severe winter and had some space. We planted **Pacific**, **Sweet Charlie**, **Aromas**, **Quinalt** and **Ozark Beauty** in late February. The **Pacific** came on very strong, early, with very large fruits. In my opinion the fruit was very tasty. Others who have tested this variety were also surprised at how good it tasted. The initial hand of fruit was 3-5 large berries per plant or up to one-fourth pound on some plants. The shape was excellent and the early berries were firm.

Because they were so exciting we left on the runners for tip production

(since no more plants were available at that time). Now we see that **G.W. Allan Co.** from **Nova Scotia**.

We have decided to allow the runners to grow for now and see how many can be produced per tower this spring and early summer. In some areas of the country and the world propagation of plants from runners may be essential to economic survival.

We also had a major *thrip* migration into Florida and they came in like *locust* (that you couldn't see or hear) in our area and devoured all the flowers before we could eradicate them. Other growers got hit hard as well. **Dibrom** and **Exciter** have done a fair job, but the best kill was with the old standby insecticide, **Malathion**. Prevention is the only way. I can't emphasize enough scouting and using blue sticky strips for identification of *thrips* and estimating the population. Blue sticky cards are a sure way to catch and identify *thrip*.

The old standby varieties **Quinalt** and **Ozark Beauty** were tested on a small scale and will be carried over the summer. These are good tasting ever bearing varieties that should do well in some areas for "**U-Pick**" operations. We don't know about **Aromas** yet and **Diamante** has not been planted. **Seascape** was tried last season and did okay. Some **Seascape** will be planted this spring (late) and

this coming fall. **Gaviota**, another new variety (that we didn't test) is being tested at **UF-GCREC-Dover**.

Other new varieties for the future (2002-2003) include **Earlibrite (FL93-100)**, **Strawberry Festival (FL 95-41)** and several other numbered varieties including **FL95-25** and **FL96-114**.

We still have some **Rosa Linda**, which is similar to **Sweet Charlie** but smaller during the late season.

We will continue to try this variety on a small scale as well as **Chandler**.

The winter conditions hit both of these varieties very hard, mainly because of the location they were in with respect to the frost protection misters.

Several varieties are going to be carried over the summer in the **Verti-Gro** system such as **Pacific**, **Aromas** and possibly **Diamante**. The varieties planted in September and October 1999 will also be carried over. These varieties include **Sweet Charlie**, **Camerosa**, **Chandler**, **Rosa Linda** and some **Selva**.

We felt that the 1999-2000 test on "*over summered*" varieties was not conclusive, even though they are still producing, so 8000 plants will be carried over this year. Some shading will be used on this test and some will be grown through the summer in the direct sun.

It is important to keep in mind that the response to growth of strawberries in Florida may be considerably different from the response in a colder or drier climate.

Our research and demonstration is not only for Florida, but for the entire world. Carrying plants over the summer is dangerous and unpredictable.

However, even with the first large test at **Belleview** the results were very exciting. The **Sweet Charlie** that was planted in September 1998 is still producing good berries.

With proper care, this method is still viable for “**U-Pick**” or “**Pick-Your-Own**” operations in many parts of the world.

(Our tip production trials on **Sweet Charlie** are doing very well)

## Lettuce Planting Exercise

**Variety:** Sierra & Rex  
**Age:** 4 weeks  
**Plug size:** 128 Speedling tray  
**Germination:** 95+  
**Grower:** Speedling, Inc.  
**Trial size:** 25 stacks of 5  
**Total plants:** 500  
**System:** Outside Verti-Gro

This test was to develop a planting method and determine the planting time for lettuce plugs in a **Verti-Gro** system. A double staggered row of **Verti-Gro** pots stacked 5 high containing **500 plants** were **planted by two people in 25 minutes**.

With proper planning and proper pot filling and moisture up to 600 plants per hour per person can be planted. This is a cost of planting at **\$.01-\$.015 each**.

Plant cost (*Speedling 128*) is **approximately \$.05 per plant**. This is a 3-4 week old (large) transplant.

Production of 6-8 ounce heads can occur in 3-4 weeks (5 weeks during the winter).

Taking an **average of four weeks** the **production is 100,000 plants per acre per month**. At **\$.50 per head**, this is a **gross income of \$50,000.00 per acre per month** outdoors or indoors!

Out current “**U-Pick**” price is **\$.75 per head** or **about \$1.50 per pound**.