



FIELD NOTES

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First published in *Proceedings of
the New England Vegetable
and Berry Conference 2001*

Looking to Try Something New? Growing Corn from Transplants

The best part of farming is that you are in control of what crops you grow – and how. I have the tendency to get a little bored, so there is always something new and different on the farm. In an attempt to get earlier and more productive sweet corn over the last two years, I have tried transplanting seedlings.

First the results, and then the how. In 2000, a planting of *Seneca Arrowhead* that was transplanted and row covered, matured nine days earlier than a planting that was seeded and row covered. The difference in 2001 was 11 days with *Fleet* (three days earlier than *Arrowhead*). The stand of transplants had a yield of 98%, where the seeded results were only in the 50% range with maturity very erratic mostly due to uneven germination.

Now the how. The procedure is very straightforward and can be accomplished with ordinary equipment. The first step is to check germination rates by seeding a sample tray in the greenhouse and carefully counting the quality seedlings. The reason for this is to assure that the plugs will have high counts when they are transplanted. For example, the *Arrowhead* germination was in excess of 95%, *Tomahawk* was only about 80% with many plugs that had only one seedling. The plugs are 162s and two seeds were planted in each one. The time from seed to transplant was two weeks in my greenhouse with bottom heat and good humidity control. When testing, grow the seedlings long enough to determine at what age they will transplant easily, but not so large that they are stressed. During the last five days before planting, we withheld water to strengthen the stems and force good root development. Our middle transplanting was delayed until the transplants were three weeks old. The crop was almost a total failure due to stress because of a lack of growing space in the plugs.

Transplanting the seeds is simple. You can use a mechanical transplanter, but we found it faster to plant by hand – and a carousel-type planter might be even faster. The rows are 36" on center and I used a marking wheel on the three-point hitch set at 12". The plugs are placed in shallow water to loosen the soil from the tray. One person places the plugs, and another two plant. Two plants per plug allowed us to handle fewer plugs and still achieve a 6" on center plant spacing. The 36" rows and the 12" spacing yields about 28,000 plants per acre. Three of us were able to plant about 3,000 plugs per hour.

Last but not least. The last step was to give the plugs a drench of water with fish/seaweed fertilizer. I have a water tank mounted on the cultivating tractor and a hose that lines up over the row of plants. This step means that we don't have to set up irrigation. The 2001 season was a challenge in May and June because the lack of rainfall, so we irrigated twice to maintain growth. We also irrigated direct-seeded crops which is unheard of on my soils at that time of year when moisture levels are generally high.

I used a 35'-wide floating row cover and covered eight rows. I doubt transplanting without the row cover would have been successful. The best part of using the plugs is that it eliminated about two cultivations and the plants were ahead of the weed pressure.