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Sweet Corn Yield in Relation to Plant Population

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Establishment of an optimum plant population is important to getting a good sweet corn yield. In some instances sweet corn growers with a below optimum plant population can increase yield by simply planting for a higher target population. From my own experience in conducting over 70 field experiments to calibrate the PSNT, I have generally observed that fields with about 24,000 plants per acre give the highest yield. A recent study conducted by Dr. Tom Morris and Dr. Richard Ashley, agronomists working at the University of Connecticut agrees with my observations. The researchers compared 5 populations 12, 16, 20, 24 and 28 thousand plants per acre. They found that the sweet corn variety 'Sweet Sue' grown at 24 thousand plants per acre produced significantly higher yield of marketable ears than all other populations (Figure 1).

To achieve a plant of about 24 thousand in 30 inch rows requires a plant spacing of 7 inches apart in the row, and in 36 inch rows a plant spacing of 7 inches apart in the row (Table 1).

Table 1. Plant spacing and population

"s Btwn Rws	"s Apart in Row	Plants/A
30	7	29968
30	8	26135
30	9	23231
30	10	18448
36	6	29039
36	7	24890
36	8	21779
36	9	19359

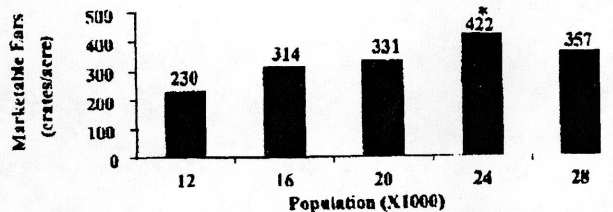


Figure 1: Plant Population and Sweet corn Yield, University of Connecticut

Weed Control

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◆ Cole Crops

Preplant incorporate Treflan 4EC or apply Dacthal 75WP preemergence or posttransplant to control **annual grasses** and certain **broadleaf weeds**. Choose Dacthal in early spring when soils are cold and wet when Treflan may cause temporary stunting. These herbicides are registered for use only on certain cole crops. Consult the Commercial Production Recommendations for rates and additional information.

Goal 1.6EC can be used pretransplant ONLY! Build beds, spray, and transplant through the herbicide barrier. Use Dacthal posttransplant for **grass** control. Treflan may increase Goal injury. Delay cultivation unless weeds appear. Incorporation reduces the effectiveness of Goal. Registered for use only on certain **transplanted** cole crops. Consult the Commercial Production Recommendations for rates and additional information.

◆ Lettuce (Seeded & Transplanted)

Apply Prefar preplant incorporated before transplanting or preemergence to seeded lettuce or apply Kerb after seeding or transplanting. Kerb has provided superior weed control. Use Prefar if rotation restrictions on the Kerb label limit summer vegetable crop options. Prefar is labeled for use in many commonly grown vegetable crops. Consult the Commercial Production Recommendations for rates and additional information.

◆ Onion

Apply Dacthal preemergence to control **annual grasses** and certain **broadleaf weeds**. Irrigate if rainfall does not occur after application.

◆ Pea

Preplant incorporate Command 4EC and/or apply Pursuit preplant incorporated or preemergence to control weeds in peas. A Special Local Needs Label 24(c) for the preemergence use of Command is valid in New Jersey but is only recommended preemergence if applied before April 1 and only to fields where spray or vapor drift is not a serious concern. A new formulation of Command called Command 3ME is encapsulated to reduce the risk of vapor drift but is only labeled for use on soybeans this year. Observe all labeled plantback restrictions. Consult the Commercial Production Recommendations for rates and additional information.

◆ Spinach

Spring-seeded spinach weed control recommendations are limited to Ro-Neet and Antor. Incorporate Ro-Neet immediately after application to prevent loss by evaporation. Reduce the rate of Ro-Neet applied and/or delay seeding for one week after application to reduce the possibility of crop injury when soils are cold. Consider omitting Ro-Neet in very early seedings on coarse-textured soil IF some hand weeding is acceptable. Apply Antor preplant incorporated as a tank-mix, or apply to the soil surface immediately after seeding. Do not reduce the rate of Antor in early spring. A Section 18 Emergency Exemption for the use of Dual and Dual 8F has been requested to replace dwindling supplies of Antor. Consult your local county agent on the status of the label. Consult the Commercial Production Recommendations for rates and additional information.