

## Production Tips for Ornamental Cabbage and Kale

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**O**rnamental cabbage and kale are crops which can extend the fall sales season into November. Consumers will buy flowering cabbage and kale after the hardy mum season has faded. Here are some tips for producing a fall crop.

**Seeding:** Sow seed mid to late-July for 8" pans. If larger plants are to be produced, sow seed in June. For smaller sized containers (i.e. 4" pots), seed can be sown up to early September. Grow late-sown plants at 62-65°F night temperatures to achieve the proper plant size.

**Containers:** Seed can be sown in plug flats or cell paks (i.e. 1206s). Finishing containers of 4", 6", 8" or larger can be used.

**Transplanting:** Allow root system to develop before transplanting to larger containers but **DO NOT LET PLANTS BECOME ROOT BOUND** (be especially careful in the plug). This will ruin the transplants. After transplant, water repeatedly to settle transplants into new containers and minimize stress.

**Spacing:** To finish the crop, plants need adequate spacing. Use 6" centers for 4" pots, 11" centers for 6" pots and 16-18" centers for 8" pots.

**Fertilizer:** Cabbage and kale respond to moderate fertilizer levels. Plants will stall if feed rate is too low or salt levels become too high. Use a 20-10-20 fertilizer and provide 200 to 300 ppm nitrogen on a constant liquid feed basis. Start feeding as soon as the seed emerges in the plug or cell flat. Start with 50 to 100 ppm and gradually increase the rate as needed. Sodium and ammonium nitrate can burn plants, so be careful with these nitrogen sources. A slow release fertilizer can be applied at transplant (i.e. a mum formulation such as a 12-10-17). If salts become too high and plants stall, leach several times with plain water then resume feed schedule.

**Watering:** This is most critical. **DO NOT LET PLANTS DRY OUT.** Maintain vigorous growth. If plants dry out growth will stall and lower leaves will yellow and drop. This will lead to a leggy appearance. Large plants may require one to two quarts of water per day!

**Disease and insect control:** To control root rot, use Subdue (1 oz/100 gal) several days after transplant. Control cabbage loopers with Dipel (or another BT formulation). Use diazinon or malathion for aphids. Scout plants constantly to monitor looper activity.

**Height control:** Properly produced plants should require little or no chemical growth regulator. B-Nine can be used at 1500 ppm if height control is a problem. Apply B-Nine after transplant but before stretching occurs. Repeat several times during July and August if necessary.

**Other:** Grow plants in full sun. Use a weed barrier if plants are on the ground.

Saleable plants can be produced in 50 to 60 days following transplant. Once plants are exposed to cold temperatures, intensive color will develop in three to five weeks.