

# Disease-free Vegetable Transplants

Buy locally grown!



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**T**HE LATE BLIGHT EPIDEMIC of summer 2009 demonstrated the importance of buying locally grown transplants and knowing your grower and garden center. The summer of 2009 will be remembered as the year an epidemic of Late Blight destroyed tomato and potato crops from Maryland to Maine.

A perfect storm of abnormally cool and rainy weather combined with the widespread distribution of Late Blight infected tomato transplants caused severe losses to both farmers and home gardeners. Tomato transplants sold in big box stores throughout the Northeast United States were nearly all infected by *Phytophthora infestans* the fungus-like organism which causes Late Blight. Diseased transplants were planted widely and the disease spread rapidly throughout the region by wind and rain.

The single, most effective means to prevent a reoccurrence of a Late Blight outbreak is to buy tomato transplants produced by local garden centers or grown from seed in the Northeast region.

*P. infestans* penetrates the leaves and stems of both tomato and potato, withdraws nutrients and kills plant cells, then produces spores (analogous to seeds). These spores are spread most efficiently by wind and water to healthy plants and the cycle repeats until all the plants are dead or dying.

Late Blight is well known for the speed an epidemic can develop and its dramatic rate of spread. Late Blight was the devastating disease that caused the Irish Potato Famine in the 1840s and resulted in widespread starvation and massive emigration.

Symptoms occur on the foliage as olive-green to dark brown lesions that rapidly enlarge and

darken with age. Under moist conditions, a downy white growth of sporulation may be seen at the lesion's edge. Symptoms on the stem consist of a brown, expanding canker that may girdle the stem or branch causing collapse of the distal end. The upper right picture shows sporulation on the stem canker. Late Blight is virtually impossible to control after an infection

develops, so prevention is the only management strategy. Start with disease-free transplants by using locally grown tomato transplants or growing tomatoes from seed.

Late blight is not the only problem you can import from the South: Insects, viruses, bacteria and fungi can be brought in on infected transplants. Buy locally.

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