

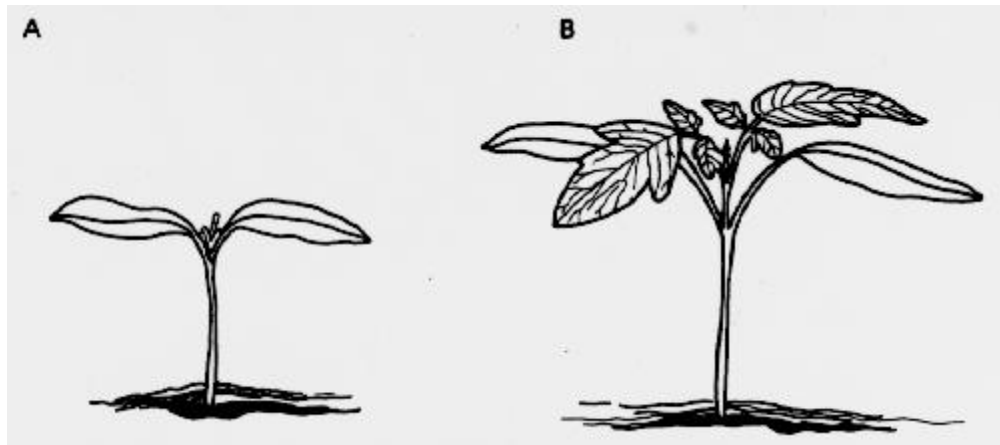
## **Increase blooms on tomato plants by subjecting the seedlings to a cold treatment**

from *Growing greenhouse tomatoes in soil and in soilless media*,

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Under a cold treatment regimen, place young tomato seedlings in a day and night air temperature of 50-55F/10-13C for approximately 2 weeks, while providing as much light as possible for 9-12 hours. Seedlings should be subjected to cold treatment just after the seed leaves (cotyledons) unfold and the first true leaves start to appear (see below). Shoots kept at low temperatures at this stage of growth produce a small number of leaves below the first flower cluster and therefore flower earlier; roots kept at low temperatures cause branched clusters, i.e., many flowers in the first and possibly the second cluster. Cold temperatures during both day and night are effective.



*Stages in seedling growth used for initiating (plant A) and terminating (plant B) the cold treatments*

The cold treatment increases the number of flowers but does not influence the setting of fruit. If later conditions for fruit setting are right, a greater number of flowers will set fruit because of the increased number of blossoms. If, however, the temperature for fruit set remains less than ideal, the pollen does not germinate and grow normally, resulting in poor fruit set and cat-faced fruit. When the cold treatment is used, seed 10-14 days earlier than usual to compensate for the slow growth rate during the cold treatment. The growth medium in the seedling trays must be sterile, because when plants are grown at relatively low temperature the danger of damping-off is increased.