

## Photoperiod Critical for Avoiding Tuber Formation in Dahlia Cuttings

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Cutting or seed produced dahlias are wonderful spring bedding plants. As you prepare for this spring's production, please keep in mind the critical photoperiod required to keep dahlias from forming tubers. If plant stall is suspected, dig around the base of the plant for the presence of tubers to confirm the situation. Tuber formation stalls leaf growth and delays flowering. It is difficult to get the plants growing again. Many times when growth restarts, it is sporadic, which results in uneven plants and lost sales.



**Tubers formed on the left plant due to short day conditions**



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Tuber formation in dahlias is a short day response. Flowering occurs with long days. In North Carolina, we generally use the first week of March as the time when the days are sufficient to provide long day conditions that avoid tuber formation. Before that time, growers need to provide supplemental lighting.

It turns out how you provide lighting matters too. Dr. Allen Hammer of Dümmer USA found it is better to provide a 14-hour day extension to help build the plant vegetatively than to provide nighttime interruption. Night interruption encourages early flowering, which may result in less than adequate leaf production before the plant blooms. This can result in small, premature flowering plants.



**Stalled plant growth occurs after tubers form**

In cooperation with our local and state greenhouse organizations





**Uneven plant growth occurs after tubers have formed**

**Key Points.**

In summary, dahlias need long days to avoid stalled growth and tuber formation. Dig around the base of the plant for the occurrence of tubers if the plants stall. Lighting should be provided so that the day is extended to 14 hours. Night interruption should be avoided because it encourages earlier flowering that may limit the bulking up of the plant.



**Close up of uneven plant growth occurs after tuber formation**