

## Tips for Growing Larger Onions

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Onions are easy to grow, but growing large onions can be a challenge. When gardeners turn to Extension for information on how to grow larger onions, here are the tips we teach.

As with most vegetables, it begins with selecting the right variety. With onions, it also helps to start with seed or plants instead of onion sets (small bulbs). And these needs to be ordered soon.

While sets are commonly used by gardeners, sets provide an earlier harvest but usually not the largest onions. If sets are used, select the smallest bulbs available. Larger sets are less likely to develop into large onions.

To select the right variety, especially when ordering seed or plants, know there are long-day, intermediate-day and short-day varieties. Long day onion varieties need to be used in Nebraska.

Onion plants begin to form bulbs based on day length. Long-day onions will not form bulbs until there is at least 14 hours of daylight. Intermediate-day onions begin bulb formation at 12 to 14 hours of daylight and short day varieties at 10 to 12 hours.

Logic might make one think the earlier in the season a plant begins to form its bulb, the larger the bulb will eventually grow. But this is not the case so use long day varieties of bulbing, not bunching, onions.

Each leaf on an onion plant relates to a ring on the bulb. The more leaves a plant has, the larger the onion can grow. By planting long day varieties, plants have more time to develop a good root system and more leaves to support bulb growth.

Plant onions in full sun and well-drained soil. While onions are a vegetable that tolerate a small amount of shade, plants need at least 8 to 10 hours of full sun each day.

To encourage growth of leaves and roots, avoid competition between plants and with weeds. Space sets and plants 3 to 4 inches apart. If using seed, thin seedlings to 3 to 4 inches apart.

Onions have very shallow roots compared to many vegetables. Controlling weeds and maintaining consistent moisture along with providing adequate nitrogen is needed.

Mulching or hoeing between rows and hand-pulling weeds within rows are good weed controls. However, due to shallow roots, it is easy to dislodge onions when weeding or thinning so proceed carefully.

Because of shallow roots, frequent irrigation may be needed to keep the upper few inches of soil uniformly moist. When plants are moisture stressed, photosynthesis and plant growth slows.

Since it is through photosynthesis plants produce the sugars and carbohydrates needed to grow, any slowing of this process will reduce growth rate along with plant or onion size.

Onions grow best in rich soil high in organic matter. They benefit from one or two side dressings of nitrogen fertilizer after roots develop. Avoid too much nitrogen as it can delay bulb formation.

One example would be to apply urea (45-0-0) at a rate of 0.25 to 0.5 pound per 25 feet of row. Spread the fertilizer along onion rows, about six inches away from plants, and scratch it into the soil.