

Onions are widely grown across a range of climates but thrive best when temperatures are cool during early development and then warmer and sunny during maturity. They can survive at temperatures of -6° , but are killed when conditions drop below -8° . Optimum germination and emergence of onion seed occurs at temperatures of $13 - 28^{\circ}$. Higher temperatures favor accumulation of sulfur, pyruvate production and increased pungency. Similarly, pungency increases in onions that suffer growing stresses.

In temperate and warm temperate regions, depending on cultivar and environment, the crop cycle can take 9-10 months and the crops are either direct sown or transplanted in the autumn for harvesting the following spring or summer. Planting crops at higher densities can increase light interception, but in thicker crops, bulb size will be lower. Thus, it is important to manipulate sowing density to provide maximum yields of a desired bulb size.

Harvest usually takes place when 80% of the plants have soft necks, about 80% of the shoot weight is in the bulb and the foliage is starting to collapse. Dry onions need a period of curing or drying in order to seal the neck, prevent invasion of diseases and rots and to create a bright crack-free skin. Shallots are traditionally propagated from bulb segments planted either in the autumn or spring. The size and vigor of the planted bulbs and the planting density influences the size of the bulbs at harvest. New varieties can also be propagated by virus free seeds. Growing practices are similar to those for common onions. However, the crop is better adapted to higher latitudes and humid tropics. Under hot and humid climates, the shorter growing cycle (60-75 days) as a result of bulb propagation, helps to reduce pest and disease pressure. Irrigation needs to cease when bulbs attain the desired marketable size. The crop should be carefully dried in the field before storage to minimize rots.

COMPREHENSION

1. Give a topic to the text

2. What should we do to have a high bulb size?

3. During growth of onion crops, when irrigation should be stopped?

4. What are the signs that indicate that harvesting is ready?

5. Referring to the text, guess whether these sentences are TRUE or FALSE (T or F) :

*Onion crops grow better in humid climates

*Onions don't support temperature below -8°

*Tropical climate reduces pests and diseases

6. Explain what does the following graphic shows.

