Bulb Growth Stages of Onion

*Allium cepa L.*

**FIGURE 1**

**FIGURE 2**

**FIGURE 3**

**FIGURE 4**

**FIGURE 5**

**FIGURE 6**

**FIGURE 7**

**FIGURE 8**
**ALLIUM TYPE:** Fresh Market and Storage Onion

Both pre- and post-bulb production are technically vegetative growth phases that occur during the first cycle of growth after planting (seeds, transplants, sets).

**PRE-BULB GROWTH STAGES**
1. radical and flag leaf emergence (10–30 days post seeding) [Fig. 1]
2. one to two true leaves (30–50 days p.s.)
3. three to four leaves (50–70 days p.s.) [Fig. 2]
4. five to seven leaves (70–90 days p.s.) [Fig. 3]
5. eight to 12 leaves, bulb initiation (90–110 days p.s.) [Fig. 4]

**POST-BULB GROWTH STAGES**
6. bulb diameter of 2.5 to 4.0 cm (110–130 days p.s.)
7. bulb diameter of 4.0 to 7.5 cm (130–150 days p.s.) [Fig. 5]
8. bulb diameter greater than 7.5 cm (150–170 days p.s.)
9. bulb enlargement complete, greater than 50% cropped to dry down (more than 170 days p.s.) [Fig. 6]

Reproductive Stages do not technically begin until the second cycle of growth after vernalization of the mature bulb; the bulb will then produce a scape or seed stalk [Fig. 7] and umbel [Fig. 8] which produces true seed after fertilization.

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