

Sweet Corn Sampling & Growth Stages

Timing: Begin sampling at primary stage 1 (leaf development) or 3 (stem elongation) and sample as required

Sample volume: Stage 1: 20-30 plants; stage 3 onwards: 15-20 stem segments

Sampling: Select plants from a representative area of the crop. Sample entire plant at stage 1. From Stage 3 plus cut a 7-10 cm stem piece from above ground level.

| Primary Stage | Secondary Stage | Description | Comments |
|---------------|-----------------|-------------------------|--|
| 1 | | | Leaf development |
| | 1.3 | | 3 leaves unfolded |
| | 1.6 | | 6 leaves unfolded |
| 3 | | | Stem elongation |
| | 3.1 | | First node detectable |
| | 3.9 | | 9 or more nodes detectable |
| 5 | | | Inflorescence emergence, heading |
| | 5.1 | Tassel emergence | Beginning of tassel emergence tassel detectable at top |
| | 5.3 | | Tip of tassel visible |
| | 5.5 | | Middle of tassel emergence: middle of tassel begins to separate |
| | 5.9 | | End of tassel emergence: tassel fully emerged and separated |
| 6 | | | Flowering, anthesis |
| | 6.1 | Pollination | Male: Stamens in middle of tassel visible Female: Tip of ear emerging from leaf sheath |
| | 6.3 | | Male: Beginning of pollen shedding Female: Tips of stigmata visible |
| | 6.5 | | Male: Upper and lower parts of tassel in flower Female: Stigmata fully emerged |
| | 6.7 | | Male: Flowering completed Stigmata drying |
| | 6.9 | | End of flowering: stigmata completely dry |
| 7 | | | Development of fruit |
| | 7.1 | Mid cob | Beginning of grain development: kernels at blister stage, about 16% dry matter |
| | 7.5 | | Kernels in middle of cob yellowish white (variety dependent) content milky, about 40% dry matter |
| | 7.9 | | Nearly all kernels have reached final size |
| 8 | | | Ripening |
| | 8.5 | Mature cob | Dough stage; kernels yellowish to yellow (variety dependent), about 55% dry matter |
| | 8.7 | | Physiological maturity: black dot/layer visible at base of kernels, about 60% dry matter |
| | 8.9 | | Fully ripe: kernels hard and shiny, about 65% dry matter |

Growth Stage numbering system is in accordance to the extended BBCH, a uniform coding of phenologically similar growth stages for all plant species

© 2008 AgVita Analytical Pty Ltd., PO Box 188, Devonport TAS 7310
Ph: 03-6420 9600, Fax 03-6427 0230, info@agvita.com.au, www.agvita.com.au