

## Carrot Sampling & Growth Stages

**Timing:** Begin sampling at stage 1.5 (Vegetative growth), continue fortnightly until stage 4.6

**Sample volume:** 30 plants for stage 1, later 15-20 plants. Return to the same representative sampling area for subsequent sampling.

**Sampling Tops:** Send entire tops of young plants. Later, the root and leaflets should be removed, retaining the center petioles and stalks for testing.

**Sampling Roots:** Collect 15-20 roots, making sure all dirt has been wiped clean of the sample. Remove tops prior to postage

Primary Stage	Secondary Stage	Description	Comments
1			<b><i>Leaf Development (main shoot)</i></b>
	1.5	Vegetative growth	5th true leaf unfolded
	1.9		9 or more true leaves unfolded
4			<b><i>Development of harvestable vegetable plant part</i></b>
	4.1	Bulking up of roots for harvesting	Roots begin to expand (diameter > 0.5 cm)
	4.2		20% of the expected root diameter reached
	4.4		40% of the expected root diameter reached
	4.5		50% of the expected root diameter reached
	4.6		60% of the expected root diameter reached
	4.8		80% of the expected root diameter reached
	4.9		Expansions complete; typical form and size of roots reached
5			<b><i>Inflorescence emergence</i></b>
	5.1	Stages for seed production	Main shoot begins to elongate
	5.5		First individual flowers of main shoot inflorescence visible (still closed)
6			<b><i>Flowering</i></b>
	6.5		Full flowering: 50% of flowers open
7			<b><i>Development of fruit</i></b>
	7.5		50% of fruits have reached typical size
	7.9		Fruits have reached typical size
8			<b><i>Ripening of fruit and seed</i></b>
	8.9		Fully ripe: seeds on the whole plant of typical colour and hard
9			<b><i>Senescence</i></b>
	9.7		Plants or above ground parts dead
	9.9		Harvested product (seeds)

*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