

## Russet Burbank/Ranger Russet/Shepody\* Sampling & Growth Stages

**Timing:** Begin sampling at stage 1.7 (vegetative, pre-tuber) and go to stage 4.6 (mid tuber bulking)

**Sample volume:** 30 petioles

**Sampling:** Collect samples from a representative area in the crop. Return to the same area for subsequent samples. Collect 1 leaf per plant; select the youngest fully expanded leaf (YFEL), usually the third or fourth leaf from the top. Discard the leaflets and retain the petioles for analysis

*Growth stages describe the stage most plants within a crop have reached (60% or more)*

Primary Stage	Secondary Stage	Weeks A/P*	Description	Comments
1	<i>Early vegetative growth</i>			
	1.5	4	<b>Emergence</b>	5 Leaves on main stem
	1.7	5	<b>Pre-tuber</b>	Full emergence, no swelling of stolons
	1.8	6	<b>Begin of tuber Initiation</b>	Tuber twice the diameter of stolon
3	<i>Crop cover (row closure), flowering</i>			
	3.1	7	<b>Late tuber initiation</b>	King tuber 1 - 2 cm diameter
	3.3	8		King tuber 2 - 2.5 cm diameter
4	<i>Tuber expansion</i>			
	4.1	9	<b>Early tuber bulking Foliage erect</b>	Tubers 2.5 - 3 cm diameter
	4.2	10		Tubers 3 - 4 cm diameter
	4.3	11		Tubers 4 - 5 cm diameter
	4.4	12	<b>Mid tuber bulking Foliage horizontal</b>	Tubers 5 - 6 cm diameter
	4.5	13		Tubers 6 - 8 cm diameter
	4.6	14		Tubers 8 - 10 cm diameter
	4.7	15	<b>Late tuber bulking Vegetative growth ceased</b>	Tubers 10 - 12 cm diameter
	4.8	>16		Tuber sizes per plant even out
	4.9			Tuber skin set

\*Shepody may develop slightly faster than the Russet varieties, use the GS numbers, rather than weeks after planting

\* A/P – After Planting

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

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