

Grapevine Lorenz et al., 1994

Phenological growth stages and BBCH-identification keys
of grapevine
(*Vitis vinifera* L. ssp. *vinifera*)

Code	Description
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Principal growth stage 0: Sprouting/Bud development

00	Dormancy: winter buds pointed to rounded, light or dark brown according to cultivar; bud scales more or less closed according to cultivar
01	Beginning of bud swelling: buds begin to expand inside the bud scales
03	End of bud swelling: buds swollen, but not green
05	"Wool stage": brown wool clearly visible
07	Beginning of bud burst: green shoot tips just visible
08	Bud burst: green shoot tips clearly visible

Principal growth stage 1: Leaf development

11	First leaf unfolded and spread away from shoot
12	2nd leaves unfolded
13	3rd leaves unfolded
1 .	Stages continuous till . . .
19	9 or more leaves unfolded

Principal growth stage 5: Inflorescence emerge

53	Inflorescences clearly visible
55	Inflorescences swelling, flowers closely pressed together
57	Inflorescences fully developed; flowers separating

Principal growth stage 6: Flowering

60	First flowerhoods detached from the receptacle
61	Beginning of flowering: 10% of flowerhoods fallen
62	20% of flowerhoods fallen
63	Early flowering: 30% of flowerhoods fallen
64	40% of flowerhoods fallen
65	Full flowering: 50% of flowerhoods fallen
66	60% of flowerhoods fallen
67	70% of flowerhoods fallen
68	80% of flowerhoods fallen
69	End of flowering

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Code	Description
Principal growth stage 7: Development of fruits	
71	Fruit set: young fruits begin to swell, remains of flowers lost
73	Berries goat-sized, bunches begin to hang
75	Berries pea-sized, bunches hang
77	Berries beginning to touch
79	Majority of berries touching

Principal growth stage 8: Ripening of berries

81	Beginning of ripening: berries begin to develop variety-specific colour
83	Berries developing colour
85	Softening of berries
89	Berries ripe for harvest

Principal growth stage 9: Senescence

91	After harvest; end of wood maturation
92	Beginning of leaf discolouration
93	Beginning of leaf-fall
95	50% of leaves fallen
97	End of leaf-fall
99	Harvested product

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