

Table 1. Description of phenological stages of northern wild rice according to the two-digit BBCH scale.

Two-digit BBCH code	Description
Principal phenological stage 0: Germination	
00	Dry seed
01	Initiation of seed imbibition in cold, wet storage
05	Coleoptile emergence
07	Radicle emergence
08	Shoot growing towards soil surface
09	Emergence: coleoptile breaks through soil surface
Principal phenological stage 1: Leaf Development	
10	First submerged leaf emerged
11	Second submerged leaf emerged
12	Third submerged leaf emerged
13	Floating leaf emerged
14	First aerial leaf emerged
15	Second aerial leaf emerged
16	Flag leaf emerged
Principal phenological stage 2: Formation of Tillering	
21	First tiller visible
2.	Stages continuous until...
29	9 or more tillers visible
Principal phenological stage 3: Stem Elongation	
31	Panicle initiation
32	Panicle formation
35	Internode elongation and stem thickness increase
37	Panicle moving upwards
39	Flag leaf unfolded; pre-boot stage
Principal phenological stage 4: Booting	
41	Early boot stage: flag leaf sheath extending
43	Mid boot stage: flag leaf sheath just visibly swollen
45	Late boot stage: flag leaf sheath swollen
47	Flag leaf sheath opening
49	Flag leaf sheath opened and first awns visible
Principle phenological stage 5: Heading	
51	Beginning of panicle emergence
52	30% of female florets emerged
53	60% of female florets emerged
54	90% of female florets emerged
55	Middle of panicle emergence; male florets not yet visible
56	30% of male florets emerged
57	60% of male florets emerged
58	90% of male florets emerged

59	End of panicle emergence
Principle phenological stage 6: Flowering	
60	Stigmata begin to emerge
61	Stigmata fully emerged
62	Stigmata Drying
63	Male florets begin to open
64	Start of pollen shedding
65	50% of male florets in flower
66	Flowering complete
67	Flowers drying
69	End of Flowering
Principle phenological stage 7: Development of fruit	
71	Caryopsis watery ripe
73	Early milk
75	Medium milk
77	Late milk
79	Nearly all seed have filled
Principal phenological stage 8: Ripening	
81	Soft dough
85	Hard dough
86	Seed begin to ripen; color change from green to tan/brown/black
87	30% seed fully ripe
88	60% seed fully ripe
89	90% seed fully ripe
Principal phenological stage 9: Senescence, beginning of dormancy	
91	Stem and leaves begin to yellow, starting at the base
93	50% foliage still green
95	80% of foliage dry, brown
97	Plants fully senesced
99	Process seed for storage