

**Table S1.** Confusion matrix from the execution with the best accuracy in cotyledon stage of four *B. juncea* varieties (**Deep learning/SNV**).

	Chungot	Dolsangot	Earlchungot	Jukgot	class precision
Chungot	36	2	1	0	92.31%
Dolsangot	5	57	2	2	86.36%
Earlchungot	0	13	41	5	69.49%
Jukgot	0	0	2	124	98.41%
class recall	87.80%	79.17%	89.13%	94.66%	

**Table S2.** Confusion matrix from the execution with the best accuracy in 1-2 leaf stage of four *B. juncea* varieties (**SVM/SNV**).

	Chungot	Dolsangot	Earlchungot	Jukgot	class precision
Chungot	5	1	5	0	45.45%
Dolsangot	55	198	55	0	64.29%
Earlchungot	10	7	20	0	54.05%
Jukgot	0	0	0	211	100.00%
class recall	7.14%	96.12%	25.00%	100.00%	

**Table S3.** Confusion matrix from the execution with the best accuracy in 3-4 leaf stage of four *B. juncea* varieties (Deep learning/SNV).

	Chungot	Dolsangot	Earlchungot	Jukgot	class precision
Chungot	165	0	27	43	70.21%
Dolsangot	0	453	0	0	100.00%
Earlchungot	4	0	88	6	89.80%
Jukgot	21	0	9	562	94.93%
class recall	86.84%	100.00%	70.97%	91.98%	

**Table S4.** Confusion matrix from the execution with the best accuracy in 5-6 leaf stage of four *B. juncea* varieties (Deep learning/SNV).

	Chungot	Dolsangot	Earlchungot	Jukgot	class precision
Chungot	202	0	0	0	100.00%
Dolsangot	0	236	0	0	100.00%
Earlchungot	0	0	207	0	100.00%
Jukgot	0	0	0	210	100.00%
class recall	100.00%	100.00%	100.00%	100.00%	