

## Supplementary file S4

**Table S1.** Accuracy of the fitted cumulative link model, which estimates the cumulative probabilities of a spot belonging to a specific quality class or lower (i.e., poor, satisfactory, or good). The table shows the distributions of the observed and predicted spot quality classes as well as the relative proportions of correct predictions. The predicted quality class was selected based on the highest class-specific probability derived from the cumulative probabilities.

Observed	Predicted			Total (%)	Correct (%)
	Poor	Satisfactory	Good		
Poor	50	162	4	5.2	23.1
Satisfactory	40	846	514	34.0	60.4
Good	11	124	2369	60.8	94.6
Total (%)	2.5	27.5	70.1	100	79.2

**Table S2.** Accuracy of the fitted cumulative link mixed model, which estimates the cumulative probabilities of a seedling belonging to a specific vitality class or lower (i.e., dead, weakened, or healthy). The table shows the distributions of the observed and predicted vitality classes as well as the relative proportions of correct predictions. Predictions were based on the fixed variables of the cumulative link mixed model. The predicted vitality class was selected based on the highest class-specific probability derived from the cumulative probabilities.

Observed	Predicted			Total (%)	Correct (%)
	Dead	Weakened	Healthy		
Dead	0	19	70	3.9	0.0
Weakened	4	75	342	18.7	17.8
Healthy	0	38	1708	77.4	97.8
Total (%)	0.2	5.9	94.0	100	79.0