

Note	Model no.	Input size	Trainset	#Train samples	Testset	#Test samples	i	Learning rate	%TP Good	%TP Avg	%TP Poor	Train time (min)	Accuracy
Images from all growing seasons			Class Good//Medium//Poor		Class Good//Medium//Poor								
	1	32x32	Original//Original//Original	1518	Original//Original//Original	763	5	0.001	38	13.1	0	0.2	51.11
	2a	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original//Original//Original	763	10	0.001	11.66	34.73	1.44	0.33	47.83
	2b	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original//Original//Original	763	10	0.005	41.80	2.49	1.04	0.46	45.34
	2b	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	10	0.005	1.52	0.08	6.94	0.46	8.56
	2b	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	3052	10	0.005	11.59	0.68	5.47	0.46	17.75
	2c	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop (split into 3 batches)	1837	Original//Original//Original	763	10	0.005	3.40	32.37	2.88	2.33	38.66

	2c	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop (split into 3 batches)	1837	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	10	0.005	1.39	1.48	6.81	2.33	9.69
	2c	32x32	Original//Original//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop (split into 3 batches)	1837	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	3052	10	0.005	1.90	9.20	5.83	2.33	16.93
	3	32x32	Original//200x200 pixels center crop//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original//Original//Original	763	10	0.005	46.92	1.57	1.04	0.48	49.54
	3	32x32	Original//200x200 pixels center crop//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	10	0.005	2.53	35.08	1.52	0.48	39.14
	3	32x32	Original//200x200 pixels center crop//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200	3052	10	0.005	13.63	26.70	1.40	0.48	41.74

			bottom left crop & 200x200 pixels bottom right crop		pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop								
	4	32x32	200x200 pixels center crop//200x200 pixels center crop//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original//Original//Original	763	10	0.005	12.31	0.91	6.42	0.46	19.65
	4	32x32	200x200 pixels center crop//200x200 pixels center crop//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	10	0.005	25.77	11.66	2.88	0.46	40.32
	4	32x32	200x200 pixels center crop//200x200 pixels center crop//Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	1837	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	3052	10	0.005	22.41	8.97	3.76	0.46	35.15
	5a	32x32	Original//Original//N.A	1413	Original//Original//N.A	709	10	0.005	37.51	20.31	N/A	0.68	57.82
	5b	32x32	Original & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200		Original//Original//N.A	709	15	0.005	36.67	23.83	N/A	1.03	60.50

			pixels bottom left crop & 200x200 pixels bottom right crop //N.A										
	5b	32x32	Original & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A		200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //NA	2836	15	0.005	30.32	23.74	N/A	1.03	54.06
	5b	32x32	Original & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A		Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	2127	15	0.005	31.91	23.76	N/A	1.03	55.67
	5c	32x32	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A	5649	Original//Original//N.A	709	15	0.005	42.03	16.64	N/A	1.68	58.67
	5c	32x32	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A	5649	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //NA	2127	15	0.005	36.57	17.91	N/A	1.68	54.48
	5c	32x32	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A	5649	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	2836	15	0.005	37.94	17.59	N/A	1.68	55.53

			pixels bottom left crop & 200x200 pixels bottom right crop //N.A		pixels bottom left crop & 200x200 pixels bottom right crop // NA								
	5d	128x128	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A	5649	Original//Original//N.A	709	15	0.005	21.29	29.61	N/A	9.58	50.91
	5d	128x128	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A	5649	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //NA	2127	15	0.005	27.12	23.41	N/A	9.58	50.54
	5d	128x128	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //N.A	5649	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	2836	15	0.005	25.66	24.96	N/A	9.58	50.63
	5e	32x32	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	4554	Original//Original//NA	709	15	0.005	53.73	0	N/A	1.32	53.73
	5e	32x32	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	4554	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	2127	15	0.005	53.73	0	N/A	1.32	53.73

	5e	32x32	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	4554	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	2836	15	0.005	0.07	45.98	N/A	1.32	46.05
	6a	32x32	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	6072	Original//Original//Original	763	15	0.005	21.62	27.52	2.09	1.75	51.24
	6a	32x32	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	6072	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	15	0.005	4.98	7.47	5.59	1.75	18.04
	6a	32x32	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	6072	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	3052	15	0.005	9.14	12.48	4.71	1.75	26.34

			crop & 200x200 pixels bottom right crop		crop & 200x200 pixels bottom right crop								
	6b	128x128	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	6072	Original//Original//Original	763	15	0.005	7.10	6.40	0.04	11.55	13.54
	6b	128x128	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	6072	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	15	0.005	8.03	5.59	5.41	11.55	19.04
	6b	128x128	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	6072	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	3052	15	0.005	11.33	8.97	4.94	11.55	25.26
	6c	32x32	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	4554	Original//Original//Original	763	15	0.005	0	0	7.07	1.06	7.07

			// 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop										
	6c	32x32	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	4554	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	2289	15	0.005	0.04	0	7.07	1.06	7.12
	6c	32x32	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	4554	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop	3052	15	0.005	0.03	0	7.07	1.06	7.11
Images from growing season “medium”	7a	32 x 32	Original//Original//N.A	666	Original//Original//N.A	333	15	0.005	57.00	0	N/A	0.2	57.00
	7a	32 x 32	Original//Original//N.A	666	Original//Original//N.A	333	30	0.005	47.74	15.31	N/A	0.4	63.06
	7b	32 x 32	Original & 200x200 pixels center crop// Original & 200x200 pixels center crop //N.A	1998	Original//Original//N.A	333	15	0.005	57.00	0	N/A	0.36	57.00
	7b	32 x 32	Original & 200x200 pixels center crop// Original & 200x200 pixels center crop //N.A	1332	Original//Original//N.A	333	15	0.005	41.74	21.02	N/A	0.7	62.76

	7b	32 x 32	Original & 200x200 pixels center crop// Original & 200x200 pixels center crop //N.A	1332	200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop //NA	999	15	0.005	42.34	13.61	N/A	0.7	55.95
	7b	32 x 32	Original & 200x200 pixels center crop// Original & 200x200 pixels center crop //N.A	1332	Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // Original & 200x200 pixels center crop & 200x200 pixels bottom left crop & 200x200 pixels bottom right crop // NA	1332	15	0.005	42.19	15.46	N/A	0.7	57.65