

Table 3. Summary for binary logistic regression models and important variables identified by a random forest classifier algorithm in the Boruta package^a

	Full model					Stepwise selection model				
	Estimate	Std. Error	Z-value	P-value	Variable importance	Estimate	Std. Error	Z-value	P-value	Variable importance
(Intercept)	-1.16	0.46	-2.50	0.01		-1.05	0.22	-4.81	<0.001	
Spray date	0.49	0.09	5.57	<0.001	57.1	0.49	0.09	5.64	<0.001	78.1
First spray date	-0.37	0.10	-3.78	<0.001	35.5	-0.36	0.10	-3.82	<0.001	46.0
Disease incidence	0.27	0.10	2.70	0.01	18.2	0.24	0.09	2.67	0.01	24.4
Disease incidence in May	-0.15	0.09	-1.64	0.10		-0.14	0.09	-1.59	0.11	
Flag shoot incidence	0.05	0.09	0.59	0.56						
Previous flag shoot incidence	-0.05	0.10	-0.46	0.65						
Synthetic	0.84	0.11	7.89	<0.001	52.3	0.83	0.10	8.03	<0.001	67.5
Nonsynthetic	-0.29	0.10	-2.83	0.004	23.3	-0.28	0.10	-2.77	0.01	24.0
Pruning thoroughness					18.7					
2	0.16	0.25	0.62	0.54						
3	0.45	0.24	1.83	0.07						
4	-0.17	0.32	-0.52	0.60						
5	0.25	0.28	0.89	0.37						
Susceptibility V6-strains					3.6					
1	-12.20	535.41	-0.02	0.98						
2	-0.29	0.67	-0.44	0.66						
3	-0.03	0.35	-0.08	0.93						
4	-0.04	0.39	-0.11	0.91						
5	-0.35	0.62	-0.57	0.57						
Susceptibility non-V6 strains					5.6					
1	12.00	535.41	0.02	0.98						
2	0.05	0.68	0.07	0.95						
3	-	-	-	-						
4	-0.01	0.29	-0.03	0.98						

Year						22.5					31.9
2015		-0.30	0.23	-1.30	0.20		-0.25	0.22	-1.13	0.26	
2016		0.35	0.25	1.41	0.16		0.44	0.24	1.82	0.07	
2017		0.03	0.20	0.14	0.89		0.09	0.19	0.44	0.66	
Grower						30.6					45.6
2		0.37	0.30	1.22	0.22		0.27	0.28	0.97	0.33	
3		0.57	0.44	1.30	0.19		0.55	0.42	1.32	0.19	
4		0.47	0.42	1.13	0.26		0.30	0.35	0.84	0.40	
5		0.16	0.34	0.48	0.63		0.03	0.30	0.08	0.93	
6		1.66	0.46	3.64	<0.001		1.58	0.43	3.67	<0.001	
7		1.44	0.28	5.22	<0.001		1.40	0.25	5.58	<0.001	
8		0.03	0.32	0.10	0.92		0.02	0.28	0.08	0.94	
Model fit	AIC	1229.0					1210.5				
	Null deviance	1558.6 on 1154 degrees of freedom					1558.6 on 1154 degrees of freedom				
	Residual deviance	1167.0 on 1124 degrees of freedom					1176.5 on 1138 degrees of freedom				
	LR test	391.6 ($P \leq 0.001$)					382.08 ($P \leq 0.001$)				
	MCFadden's R^2	0.2512					0.2451				
N						1155					

^a P -values indicate whether parameter estimates are significantly different from 0 as inferred from the Z-score.