Table 2. Number (percentage) of applications of fungicide applied for hop powdery mildew for each type of fungicide and switching behavior[a]

Covariate[b]	N → N	N → S	N → M	S → S	S → N	S → M	M → M	M → N	M → S
N	493	157	125	94	82	39	101	35	29
Pruning thoroughness									
1	148(55.8)	31(11.7)	35(13.2)	17(6.4)	9(3.4)	4(1.5)	13(4.9)	8(3)	0(0)
2	89(41.4)	42(19.5)	18(8.4)	14(6.5)	20(9.3)	7(3.3)	16(7.4)	4(1.9)	5(2.3)
3	101(35.7)	41(14.5)	35(12.4)	7(2.5)	20(7.1)	16(5.7)	42(14.8)	5(1.8)	16(5.7)
4	69(48.6)	13(9.2)	14(9.9)	13(9.2)	5(3.5)	6(4.2)	14(9.9)	4(2.8)	4(2.8)
5	86(34.4)	30(12)	23(9.2)	43(17.2)	28(11.2)	6(2.4)	16(6.4)	14(5.6)	4(1.6)
Susceptibility V6 strains									
0	29(46.8)	13(21)	2(3.2)	3(4.8)	11(17.7)	0(0)	2(3.2)	0(0)	2(3.2)
1	87(42.9)	29(14.3)	12(5.9)	24(11.8)	15(7.4)	12(5.9)	15(7.4)	2(1)	7(3.4)
2	37(44.6)	11(13.3)	8(9.6)	13(15.7)	3(3.6)	4(4.8)	4(4.8)	1(1.2)	2(2.4)
3	155(46)	52(15.4)	28(8.3)	25(7.4)	38(11.3)	7(2.1)	18(5.3)	8(2.4)	6(1.8)
4	174(39.6)	45(10.3)	72(16.4)	26(5.9)	14(3.2)	14(3.2)	59(13.4)	23(5.2)	12(2.7)
5	11(35.5)	7(22.6)	3(9.7)	3(9.7)	1(3.2)	2(6.5)	3(9.7)	1(3.2)	0(0)
Susceptibility non-V6 strains									
0	172(45.1)	46(12.1)	57(15)	16(4.2)	20(5.2)	5(1.3)	43(11.3)	19(5)	3(0.8)
1	86(42.6)	29(14.4)	12(5.9)	24(11.9)	15(7.4)	12(5.9)	15(7.4)	2(1)	7(3.5)
2	23(38.3)	7(11.7)	6(10)	11(18.3)	2(3.3)	4(6.7)	4(6.7)	1(1.7)	2(3.3)
3	155(46)	52(15.4)	28(8.3)	25(7.4)	38(11.3)	7(2.1)	18(5.3)	8(2.4)	6(1.8)
4	57(32.6)	23(13.1)	22(12.6)	18(10.3)	7(4)	11(6.3)	21(12)	5(2.9)	11(6.3)
Synthetic[c]									
0	493(80.8)	0(0)	0(0)	0(0)	82(13.4)	0(0)	0(0)	35(5.7)	0(0)
1	0(0)	157(28.8)	125(22.9)	94(17.2)	0(0)	39(7.2)	101(18.5)	0(0)	29(5.3)
Nonsynthetic[c]									
0	0(0)	157(56.1)	0(0)	94(33.6)	0(0)	0(0)	0(0)	0(0)	29(10.4)
1	388(51)	0(0)	123(16.2)	0(0)	81(10.6)	39(5.1)	100(13.1)	30(3.9)	0(0)
2	102(91.9)	0(0)	2(1.8)	0(0)	1(0.9)	0(0)	1(0.9)	5(4.5)	0(0)
3	3(100)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)

[a] There were a total of N = 1155 observations of fungicide applications from all years and hop yards, excluding the first (baseline) application. S: synthetic, N: non-synthetic, and M: mixture. Arrows indicate the direction of switching between the three fungicide types. Parentheses are the percentage for each subgroup.

[b] Variable descriptions are as described in the Materials and Methods.

[c] Synthetic and non-synthetic are categorical variables that denote the count of active ingredients of each type applied in the given sequence of applications.