

Deciduous Orchard Diseases—Chemical Control

Venturia inaequalis

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Keywords: *Venturia inaequalis*, Dodine, Cyprex, Flusilazol, Nustar, Myclobutanil, Nova, apple

Leaves collected from the orchard floor in March of 1988 from eight orchards in the north Okanagan Valley were stimulated by wetting to release ascospores into sterile water. Fifty single ascospore colonies were obtained from each orchard. Bits of mycelium from each colony were tested on potato dextrose agar amended with 0-3.0 µg/mL dodine, 0.0.1 µg/mL flusilazol and 0-1.0 µg/mL myclobutanil.

Dodine results were extremely variable ranging from a high ED₅₀ value of 18.2 to a low of 3.03 µg/mL. Six of the eight orchards require more testing with a higher range of dodine concentrations in order to accurately predict their ED₅₀ values. The ED₅₀ values of flusilazol and myclobutanil changed very little from orchard to orchard. The overall ED₅₀ for flusilazol was 0.04±0.008 and 0.175±0.075 for myclobutanil. Therefore *V. inaequalis* mycelium is 4.38 times more sensitive to flusilazol than myclobutanil. Of the eight orchards, the one with least sensitivity to myclobutanil and flusilazol was most sensitive to dodine.

Table 1. ED₅₀ values (µg/mL) of dodine, flusilazol and myclobutanil in *V. inaequalis*.

Orchard	Dodine	Flusilazol	Myclobutanil
1. Glenmore	8.06	0.04	0.12
2. Glenmore	10.12	0.04	0.20
3. Kelowna	18.20	0.04	0.13
4. Oyama	9.87	0.04	0.23
5. Glenmore	5.20	0.02	0.12
6. E. Kelowna	3.03	0.05	0.33
7. Oyama	5.92	0.04	0.13
8. Vernon	5.74	0.04	0.14
Mean	8.27±4.68	0.04±0.01	0.18±0.08

Pesticides in report are dodine=Cyprex; flusilazol=Nustar; myclobutanil=Nova.