

Table 6. Mean percent mortality of buds of 20 grapevine genotypes grown under four winter protection methods at Frelighsburg, L'Orpailleur, Dunham and Dietrich-Jooss, Iberville during 2000 and 2001 growing seasons.

| Cultivar      | Frelighsburg |      |      |      |      |      |       |      | L'Orpailleur |      |       |      |       |       |       |      | Dietrich-Jooss |      |      |      |
|---------------|--------------|------|------|------|------|------|-------|------|--------------|------|-------|------|-------|-------|-------|------|----------------|------|------|------|
|               | 2000         |      |      |      | 2001 |      |       |      | 2000         |      |       |      | 2001  |       |       |      | 2000           |      |      |      |
|               | M1           | M2   | M3   | M4   | M1   | M2   | M3    | M4   | M1           | M2   | M3    | M4   | M1    | M2    | M3    | M4   | M1             | M2   | M3   | M4   |
| Sabrevois     | 8.7          | 5.0  | 5.6  | -    | 4.4  | 7.8  | 8.7   | -    | 51.2         | 40.6 | 36.2  | -    | 30.0  | 15.9  | 23.7  | -    | 45.0           | 31.2 | 30.0 | -    |
| Prairie Star  | 21.2         | 25.0 | 16.2 | -    | 6.9  | 16.8 | 13.1  | -    | 63.1         | 46.2 | 31.2  | -    | 53.1  | 49.1  | 36.9  | -    | 52.5           | 45.0 | 63.1 | -    |
| ES-4-7-25     | 14.3         | 22.5 | 9.3  | -    | 8.1  | 11.8 | 9.4   | -    | 65.6         | 58.1 | 17.8  | -    | 57.5  | 38.1  | 23.1  | -    | 33.0           | 25.0 | 40.0 | -    |
| Delisle       | 15.0         | 10.0 | 14.4 | -    | 20.0 | 39.3 | 66.2  | -    | 73.1         | 48.1 | 27.5  | -    | 53.1  | 31.8  | 22.8  | -    | 41.2           | 26.2 | 40.6 | -    |
| Michurinetz   | 8.7          | 6.2  | 6.2  | -    | 9.4  | 23.1 | 25.0  | -    | 44.4         | 22.5 | 24.4  | -    | 77.5  | 55.0  | 17.5  | -    | 62.8           | 18.3 | 28.1 | -    |
| St. Croix     | 7.5          | 10.6 | 6.2  | -    | 9.4  | 15.3 | 11.2  | -    | 44.4         | 37.5 | 13.7  | -    | 33.1  | 19.6  | 17.5  | -    | 55.6           | 31.9 | 27.5 | -    |
| St. Pepin     | 22.5         | 15.6 | 24.4 | -    | 5.0  | 18.1 | 23.7  | -    | 58.7         | 55.6 | 34.4  | -    | 40.6  | 24.04 | 28.7  | -    | 45.6           | 29.4 | 44.4 | -    |
| Vandal-Cliche | 6.8          | 4.3  | 7.5  | -    | 4.4  | 21.5 | 12.5  | -    | 36.9         | 28.1 | 20.0  | -    | 55    | 35.6  | 11.9  | -    | 38.7           | 31.2 | 20.6 | -    |
| Kay Gray      | 8.7          | 8.7  | 10.0 | -    | 3.7  | 12.1 | 15.0  | -    | 23.7         | 36.9 | 30.7  | -    | 18.12 | 17.8  | 15.0  | -    | 31.9           | 23.7 | 27.5 | -    |
| ES-6-12-28    | 15.6         | 25.0 | 18.1 | -    | 26.2 | 49.3 | 30.0  | -    | 75.0         | 54.4 | 18.1  | -    | 72.5  | 57.8  | 24.4  | -    | 44.4           | 28.1 | 44.4 | -    |
| GR-7          | 18.7         | 21.2 | 20.6 | -    | 13.7 | 23.1 | 15    | -    | 80.0         | 50.6 | 11.9  | -    | 75.8  | 68.7  | 15.0  | -    | 55.0           | 30.6 | 35.0 | -    |
| L. Kuhlmann   | 33.1         | 20.0 | 13.1 | -    | 11.9 | 25.0 | 13.7  | -    | 71.9         | 41.2 | 15.0  | -    | 82.1  | 76.8  | 15.6  | -    | 59.3           | 29.4 | 38.1 | -    |
| Chancellor    | -            | -    | 24.4 | -    | -    | -    | 50.0  | -    | -            | -    | 61.2  | -    | -     | -     | 35.6  | -    | -              | -    | 35.0 | -    |
| Hibernal      | -            | -    | 24.4 | -    | -    | -    | 26.2  | -    | -            | -    | 51.2  | -    | -     | -     | 41.9  | -    | -              | -    | 40.6 | -    |
| Ok. Riesling  | -            | -    | 23.1 | -    | -    | -    | 30.6  | -    | -            | -    | 57.1  | -    | -     | -     | 52.5  | -    | -              | -    | 40.0 | -    |
| Seyval blanc  | -            | -    | 30.0 | 58.7 | -    | -    | 56.2  | 93.1 | -            | -    | 69.2  | 72.5 | -     | -     | 60.6  | 92.5 | -              | -    | 43.7 | 64.2 |
| Seyval noir   | -            | -    | 45.6 | -    | -    | -    | 63.7  | -    | -            | -    | 56.2  | -    | -     | -     | 60.0  | -    | -              | -    | 47.5 | -    |
| Siegerrebe    | -            | -    | 84.4 | -    | -    | -    | 86.2  | -    | -            | -    | 74.3  | -    | -     | -     | 62.5  | -    | -              | -    | 68.3 | -    |
| SV-18-307     | -            | -    | 55.0 | -    | -    | -    | 65.0  | -    | -            | -    | 89.38 | -    | -     | -     | 71.2  | -    | -              | -    | 61.9 | -    |
| Vidal blanc   | -            | -    | 62.5 | -    | -    | -    | 68.1  | -    | -            | -    | 85.0  | -    | -     | -     | 80.6  | -    | -              | -    | 63.3 | -    |
| F value       | 6.82         | 6.22 | 18.8 |      | 2.03 | 3.53 | 19.18 |      | 8.98         | 4.24 | 14.49 |      | 16.25 | 21.5  | 17.29 |      | 1.99           | 1.32 | 2.32 |      |
| LSD 5%        | 8.4          | 8.9  | 13.6 | -    | 13.6 | 17.4 | 15.8  | -    | 7.9          | 15.0 | 18.1  | -    | 14.4  | 12.4  | 14.4  | -    | 19.6           | 13.5 | 24.7 | -    |

Data are means of 4 replicates of 3 vines/replicate.

Data were arcsin-transformed prior to anova, but no differences were found between the two analyses and are shown as non transformed data here.

Winter protection: M1 = no winter protection, M2 = 50% of canes on ground covered by snowfall and 50% of canes without any protection, M3 = vine under geotextile fabric, M4 = vine was buried by 0.35 m of soil.

'-' not planted, using an incomplete, randomised block design (split-plots).