

| Mes          | 2012-2013          |                      | 2013-2014          |                      | 2014-2015          |                      |
|--------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
|              | Precipitación (mm) | T <sup>a</sup> Media | Precipitación (mm) | T <sup>a</sup> Media | Precipitación (mm) | T <sup>a</sup> Media |
| Octubre      | 72,0               | 13,7                 | 30,0               | 15,3                 | 33,0               | 16,3                 |
| Noviembre    | 58,0               | 8,3                  | 58,0               | 8,6                  | 100,0              | 10,1                 |
| Diciembre    | 17,0               | 6,6                  | 25,0               | 4,5                  | 42,0               | 6,6                  |
| Enero        | 63,0               | 6,9                  | 48,0               | 6,9                  | 47,0               | 5,5                  |
| Febrero      | 79,0               | 5,4                  | 21,0               | 6,6                  | 64,0               | 4,6                  |
| Marzo        | 97,0               | 8,3                  | 57,0               | 9,6                  | 89,0               | 9,5                  |
| Abril        | 57,0               | 10,5                 | 36,0               | 14,0                 | 21,0               | 12,7                 |
| Mayo         | 47,5               | 11,1                 | 34,5               | 14,4                 | 2,6                | 16,3                 |
| Junio        | 70,5               | 16,5                 | 58,8               | 19,3                 | 42,8               | 20,3                 |
| Julio        | 14,3               | 23,2                 | 44,4               | 20,2                 | 34,9               | 23,2                 |
| Agosto       | 6,3                | 21,3                 | 25,7               | 20,7                 | 19,2               | 21,7                 |
| Septiembre   | 21,6               | 18,6                 | 56,0               | 19,9                 | 13,3               | 16,8                 |
| <b>Total</b> | <b>604</b>         |                      | <b>493</b>         |                      | <b>508</b>         |                      |
| <b>Media</b> |                    | <b>12,5</b>          |                    | <b>13,3</b>          |                    | <b>13,6</b>          |

Tabla 1. Condiciones climatológicas (2012-2015) en la parcela experimental (Finca La Grajera. Logroño)

| Variedad (Año)         | Tratamiento | Producción (kg/cepa) | Nº Racimos /cepa | Peso racimo (g) | Peso 100 bayas (g) | Nº Bayas /racimo |
|------------------------|-------------|----------------------|------------------|-----------------|--------------------|------------------|
| <b>Viura (2013)</b>    | Testigo     | 3.02                 | 12.62            | 240             | 195                | 123              |
|                        | Deshojado   | 2.84                 | 12.69            | 219             | 189                | 116              |
|                        | G.S.        | NS                   | NS               | NS              | NS                 | NS               |
| <b>Viura (2014)</b>    | Testigo     | 5.20                 | 9.6              | 551             | 241                | 229              |
|                        | Deshojado   | 4.16                 | 8.8              | 462             | 239                | 193              |
|                        | G.S.        | NS                   | NS               | NS              | NS                 | NS               |
| <b>Viura (2015)</b>    | Testigo     | 3.89                 | 9.6              | 399 a           | 157                | 254 a            |
|                        | Deshojado   | 2.98                 | 9.8              | 295 b           | 154                | 141 b            |
|                        | G.S.        | NS                   | NS               | **              | NS                 | **               |
| <b>Malvasía (2015)</b> | Testigo     | 4.53                 | 11.0             | 411             | 207                | 199              |
|                        | Deshojado   | 3.80                 | 11.2             | 329             | 210                | 157              |
|                        | G.S.        | NS                   | NS               | NS              | NS                 | NS               |

G.S.: (\*) p<0.05, (\*\*) p<0.01, (\*\*\*) p<0.001 y NS no significativo

Tabla 2. Incidencia del deshojado precoz sobre los componentes del rendimiento

| <b>Variedad (Año)</b>  | <b>Tratamiento</b> | <b>Peso madera (kg/cepa)</b> | <b>Indice de Ravaz</b> |
|------------------------|--------------------|------------------------------|------------------------|
| <b>Viura (2013)</b>    | Testigo            | 0.530                        | 5.82                   |
|                        | Deshojado          | 0.547                        | 5.12                   |
|                        | G.S.               | NS                           | NS                     |
| <b>Viura (2014)</b>    | Testigo            | 0.344                        | 15.4                   |
|                        | Deshojado          | 0.345                        | 12.0                   |
|                        | G.S.               | NS                           | NS                     |
| <b>Viura (2015)</b>    | Testigo            | 0.622                        | 6.26                   |
|                        | Deshojado          | 0.578                        | 4.99                   |
|                        | G.S.               | NS                           | NS                     |
| <b>Malvasía (2015)</b> | Testigo            | 0.642                        | 7.46                   |
|                        | Deshojado          | 0.660                        | 5.70                   |
|                        | G.S.               | NS                           | NS                     |

G.S.: (\*) p<0.05, (\*\*) p<0.01, (\*\*\*) p<0.001 y NS no significativo

Tabla 3. Incidencia del deshojado precoz sobre los parámetros de desarrollo y equilibrio vegeto-productivo

| <b>Variedad (Año)</b>  | <b>Tratamiento</b> | <b>Grado prob (v/v)</b> | <b>pH</b> | <b>Ac. Total (g/l)</b> | <b>Tartárico (g/l)</b> | <b>Málico (g/l)</b> | <b>Potasio (mg/l)</b> | <b>IPT 280nm</b> |
|------------------------|--------------------|-------------------------|-----------|------------------------|------------------------|---------------------|-----------------------|------------------|
| <b>Viura (2013)</b>    | Testigo            | 12.85                   | 3.36      | 4.67                   | 5.63                   | 1.04                | 1416                  | 6.87 b           |
|                        | Deshojado          | 13.38                   | 3.35      | 4.69                   | 5.73                   | 1.07                | 1432                  | 7.91 a           |
|                        | G.S.               | NS                      | NS        | NS                     | NS                     | NS                  | NS                    | **               |
| <b>Viura (2014)</b>    | Testigo            | 11.4                    | 3.50      | 3.53 a                 | 6.12                   | 0.60                | 1173                  | 7.23 b           |
|                        | Deshojado          | 12.0                    | 3.50      | 3.36 b                 | 5.95                   | 0.55                | 1209                  | 9.44 a           |
|                        | G.S.               | NS                      | NS        | *                      | NS                     | NS                  | NS                    | *                |
| <b>Viura (2015)</b>    | Testigo            | 13.8                    | 3.47      | 4.11 a                 | 7.32                   | 0.85                | 1548                  | 7.64             |
|                        | Deshojado          | 14.0                    | 3.54      | 3.65 b                 | 6.68                   | 0.90                | 1530                  | 7.92             |
|                        | G.S.               | NS                      | NS        | *                      | NS                     | NS                  | NS                    | NS               |
| <b>Malvasía (2015)</b> | Testigo            | 12.6                    | 3.59      | 3.07 a                 | 6.55 a                 | 0.33                | 1415                  | 9.61 b           |
|                        | Deshojado          | 12.9                    | 3.66      | 2.73 b                 | 5.98 b                 | 0.28                | 1384                  | 10.69 a          |
|                        | G.S.               | NS                      | NS        | **                     | *                      | NS                  | NS                    | **               |

G.S.: (\*) p<0.05, (\*\*) p<0.01, (\*\*\*) p<0.001 y NS no significativo

Tabla 4. Incidencia del deshojado precoz sobre la composición analítica de la uva

|                    | Viura (2013) |           | Viura(2014) |           | Viura (2015) |           | Malvasía (2015) |           |
|--------------------|--------------|-----------|-------------|-----------|--------------|-----------|-----------------|-----------|
|                    | Testigo      | Deshojado | Testigo     | Deshojado | Testigo      | Deshojado | Testigo         | Deshojado |
| Grado alc (% v/v)  | 13.7         | 13.6      | 11.2        | 11.4      | 13.6         | 13.8      | 13.5            | 14.2      |
| pH                 | 3.09         | 3.10      | 3.02        | 3.11      | 3.23 b       | 3.41 a    | 3.42 b          | 3.63 a    |
| Ac. Total (g/l)    | 7.05         | 6.50      | 6.00        | 6.15      | 5.69 a       | 5.17 b    | 5.17 a          | 4.54 b    |
| A. Tartárico (g/l) | 3.36         | 3.29      | 3.10        | 2.59      | 2.64         | 2.07      | 2.01            | 1.94      |
| A. Málico (g/l)    | 1.15         | 1.17      | 0.86        | 0.89      | 0.91 b       | 1.02 a    | 0.89 a          | 0.74 b    |
| A. Glucónico (g/l) | -            | -         | 0.166       | 0.092     | 0.790 a      | 0.297 b   | 0.920 a         | 0.330 b   |
| Potasio (mg/l)     | 628          | 558       | 628         | 651       | 718 b        | 835 a     | 870             | 851       |
| D.O. 420 nm        | 0.038        | 0.036     | 0.052       | 0.056     | 0.089        | 0.094     | 0.156           | 0.110     |
| CIELab b*          | 2.69         | 2.52      | 3.43        | 3.53      | 0.64         | 0.69      | 1.24            | 1.33      |
| D.O. 320 nm        | 3.55         | 3.69      | 3.41        | 3.59      | 5.80         | 6.10      | 13.6 a          | 13.1 b    |
| IPT 280 nm         | 4.87         | 4.85      | 5.35        | 5.08      | 9.93         | 10.80     | 16.6 a          | 15.9 b    |
| Taninos (mg/l)     | 70           | 110       | 87          | 206       | 349          | 408       | 583             | 666       |
| Catequinas (mg/l)  | 27.0         | 29.6      | 23.4        | 22.8      | 158          | 187       | 266             | 276       |

Letras diferentes para cada variedad y año indican diferencias significativas según el Test de Tukey (\*)  $p < 0.05$

Tabla 5. Incidencia del deshojado precoz sobre la composición analítica de los vinos