

ROW CROP PLANTER & CULTIVATOR

Metering Orifice Application Chart

| Orifice Size | P S I | G P M | 20" Spacing | | | | 22" Spacing | | | | 30" Spacing | | | | 36" Spacing | | | | 38" Spacing | | | | 40" Spacing | | | |
|----------------------------------|-------------|-------------|------------------|-------|-------|-------|------------------|-------|-------|-------|------------------|-------|-------|-------|------------------|-------|-------|-------|------------------|-------|-------|-------|------------------|-------|-------|-------|
| | | | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH |
| 45907 (P1-032) * Blue | 20 | .028 | 4.2 | 2.1 | 1.7 | 1.4 | 3.8 | 1.9 | 1.5 | 1.3 | 2.8 | 1.4 | 1.1 | .09 | 2.3 | 1.2 | 0.9 | 0.8 | 2.2 | 1.1 | 0.9 | 0.7 | 2.1 | 1.1 | 0.8 | 0.7 |
| | 25 | .036 | 5.3 | 2.7 | 2.1 | 1.8 | 4.8 | 2.4 | 1.9 | 1.6 | 3.5 | 1.8 | 1.4 | 1.2 | 2.9 | 1.5 | 1.2 | 1.0 | 2.8 | 1.4 | 1.1 | 0.9 | 2.7 | 1.3 | 1.1 | 0.9 |
| | 30 | .041 | 6.0 | 3.0 | 2.4 | 2.0 | 5.5 | 2.7 | 2.2 | 1.8 | 4.0 | 2.0 | 1.6 | 1.3 | 3.3 | 1.7 | 1.3 | 1.1 | 3.2 | 1.6 | 1.3 | 1.1 | 3.0 | 1.5 | 1.2 | 1.0 |
| | 40 | .047 | 6.9 | 3.5 | 2.8 | 2.3 | 6.3 | 3.1 | 2.5 | 2.1 | 4.6 | 2.3 | 1.8 | 1.5 | 3.8 | 1.9 | 1.5 | 1.3 | 3.6 | 1.8 | 1.5 | 1.2 | 3.5 | 1.7 | 1.4 | 1.2 |
| 45919 (P1-038) * Green | 20 | .042 | 6.2 | 3.1 | 2.5 | 2.1 | 5.6 | 2.8 | 2.2 | 1.9 | 4.1 | 2.1 | 1.6 | 1.4 | 3.4 | 1.7 | 1.4 | 1.1 | 3.2 | 1.6 | 1.3 | 1.1 | 3.1 | 1.5 | 1.2 | 1.0 |
| | 25 | .046 | 6.8 | 3.4 | 2.7 | 2.3 | 6.2 | 3.1 | 2.5 | 2.1 | 4.5 | 2.3 | 1.8 | 1.5 | 3.8 | 1.9 | 1.5 | 1.3 | 3.6 | 1.8 | 1.4 | 1.2 | 3.4 | 1.7 | 1.4 | 1.1 |
| | 30 | .051 | 7.6 | 3.8 | 3.1 | 2.5 | 6.9 | 3.5 | 2.8 | 2.3 | 5.1 | 2.5 | 2.0 | 1.7 | 4.2 | 2.1 | 1.7 | 1.4 | 4.0 | 2.0 | 1.6 | 1.3 | 3.8 | 1.9 | 1.5 | 1.3 |
| | 40 | .060 | 9.0 | 4.5 | 3.6 | 3.0 | 8.1 | 4.1 | 3.3 | 2.7 | 6.0 | 3.0 | 2.4 | 2.0 | 5.0 | 2.5 | 2.0 | 1.7 | 4.7 | 2.4 | 1.9 | 1.6 | 4.5 | 2.2 | 1.8 | 1.5 |
| 45920 (P1-045) * Yellow | 20 | .051 | 7.6 | 3.8 | 3.0 | 2.5 | 6.9 | 3.4 | 2.8 | 2.3 | 5.1 | 2.5 | 2.0 | 1.7 | 4.2 | 2.1 | 1.7 | 1.4 | 4.0 | 2.0 | 1.6 | 1.3 | 3.8 | 1.9 | 1.5 | 1.3 |
| | 25 | .059 | 8.7 | 4.4 | 3.5 | 2.9 | 7.9 | 4.0 | 3.2 | 2.6 | 5.8 | 2.9 | 2.3 | 1.9 | 4.9 | 2.4 | 1.9 | 1.6 | 4.6 | 2.3 | 1.8 | 1.5 | 4.4 | 2.2 | 1.7 | 1.5 |
| | 30 | .066 | 9.7 | 4.9 | 3.9 | 3.2 | 8.8 | 4.4 | 3.5 | 2.9 | 6.5 | 3.2 | 2.6 | 2.2 | 5.4 | 2.7 | 2.2 | 1.8 | 5.1 | 2.6 | 2.0 | 1.7 | 4.9 | 2.4 | 1.9 | 1.6 |
| | 40 | .075 | 11.2 | 5.6 | 4.5 | 3.7 | 10.1 | 5.1 | 4.1 | 3.4 | 7.4 | 3.7 | 3.0 | 2.5 | 6.2 | 3.1 | 2.5 | 2.1 | 5.9 | 2.9 | 2.3 | 2.0 | 5.6 | 2.8 | 2.2 | 1.9 |
| 45925 (P1-055) * Purple | 20 | .070 | 10.3 | 5.2 | 4.1 | 3.4 | 9.4 | 4.7 | 3.8 | 3.1 | 6.9 | 3.4 | 2.8 | 2.3 | 5.7 | 2.9 | 2.3 | 1.9 | 5.4 | 2.7 | 2.2 | 1.8 | 5.2 | 2.6 | 2.1 | 1.7 |
| | 25 | .079 | 11.7 | 5.9 | 4.7 | 3.9 | 10.7 | 5.3 | 4.3 | 3.6 | 7.8 | 3.9 | 3.1 | 2.6 | 6.5 | 3.3 | 2.6 | 2.2 | 6.2 | 3.1 | 2.5 | 2.1 | 5.9 | 2.9 | 2.3 | 2.0 |
| | 30 | .091 | 13.4 | 6.7 | 5.4 | 4.5 | 12.2 | 6.1 | 4.9 | 4.1 | 9.0 | 4.5 | 3.6 | 3.0 | 7.5 | 3.7 | 3.0 | 2.5 | 7.1 | 3.5 | 2.8 | 2.4 | 6.7 | 3.4 | 2.7 | 2.2 |
| | 40 | .107 | 15.9 | 8.0 | 6.4 | 5.3 | 14.5 | 7.2 | 5.8 | 4.8 | 10.6 | 5.3 | 4.2 | 3.5 | 8.8 | 4.4 | 3.5 | 2.9 | 8.4 | 4.2 | 3.4 | 2.8 | 8.0 | 4.0 | 3.2 | 2.7 |
| 45938 (P1-075) Black | 20 | .099 | 14.7 | 7.4 | 5.9 | 4.9 | 13.4 | 6.7 | 5.4 | 4.5 | 9.8 | 4.9 | 3.9 | 3.3 | 8.2 | 4.1 | 3.3 | 2.7 | 7.8 | 3.9 | 3.1 | 2.6 | 7.4 | 3.7 | 2.9 | 2.5 |
| | 25 | .116 | 17.2 | 8.6 | 6.9 | 5.7 | 15.6 | 7.8 | 6.3 | 5.2 | 11.5 | 5.7 | 4.6 | 3.8 | 9.6 | 4.8 | 3.8 | 3.2 | 9.1 | 4.5 | 3.6 | 3.0 | 8.6 | 4.3 | 3.4 | 2.9 |
| | 30 | .130 | 19.2 | 9.6 | 7.7 | 6.4 | 17.5 | 8.7 | 7.0 | 5.8 | 12.8 | 6.4 | 5.1 | 4.3 | 10.7 | 5.3 | 4.3 | 3.6 | 10.1 | 5.1 | 4.0 | 3.4 | 9.6 | 4.8 | 3.8 | 3.2 |
| | 40 | .151 | 22.4 | 11.2 | 9.0 | 7.5 | 20.4 | 10.2 | 8.2 | 6.8 | 14.9 | 7.5 | 6.0 | 5.0 | 12.5 | 6.2 | 5.0 | 4.2 | 11.8 | 5.9 | 4.7 | 3.9 | 11.2 | 5.6 | 4.5 | 3.7 |
| 45955 (P1-095) Pink | 20 | .142 | 21.0 | 10.5 | 8.4 | 7.0 | 19.1 | 9.6 | 7.6 | 6.4 | 14.0 | 7.0 | 5.6 | 4.7 | 11.7 | 5.8 | 4.7 | 3.9 | 11.1 | 5.5 | 4.4 | 3.7 | 10.5 | 5.3 | 4.2 | 3.5 |
| | 25 | .188 | 28.0 | 14.0 | 11.2 | 9.3 | 25.4 | 12.7 | 10.2 | 8.5 | 18.7 | 9.3 | 7.5 | 6.2 | 15.5 | 7.8 | 6.2 | 5.2 | 14.7 | 7.4 | 5.9 | 4.9 | 14.0 | 7.0 | 5.6 | 4.7 |
| | 30 | .220 | 32.7 | 16.3 | 13.1 | 10.9 | 29.7 | 14.9 | 11.9 | 10.0 | 21.8 | 10.9 | 8.7 | 7.3 | 18.2 | 9.1 | 7.3 | 6.1 | 17.2 | 8.6 | 6.9 | 5.7 | 16.3 | 8.2 | 6.5 | 5.4 |
| | 40 | .258 | 38.3 | 19.2 | 15.3 | 12.8 | 34.8 | 17.4 | 13.9 | 11.6 | 25.5 | 12.8 | 10.2 | 8.5 | 21.3 | 10.6 | 8.5 | 7.1 | 20.2 | 10.1 | 8.1 | 6.7 | 19.2 | 9.6 | 7.7 | 6.4 |
| 45980 (P1-115) * Brown | 20 | .263 | 39.0 | 19.5 | 15.6 | 13.0 | 35.5 | 17.7 | 14.2 | 11.8 | 26.0 | 13.0 | 10.4 | 8.7 | 21.7 | 10.8 | 8.7 | 7.2 | 20.5 | 10.3 | 8.2 | 6.8 | 19.5 | 9.8 | 7.8 | 6.5 |
| | 25 | .298 | 44.2 | 22.1 | 17.7 | 14.7 | 40.2 | 20.1 | 16.1 | 13.4 | 29.5 | 14.7 | 11.8 | 9.8 | 24.6 | 12.3 | 9.8 | 8.2 | 23.3 | 11.6 | 9.3 | 7.8 | 22.1 | 11.1 | 8.8 | 7.4 |
| | 30 | .336 | 49.9 | 24.9 | 19.9 | 16.6 | 45.3 | 22.7 | 18.1 | 15.1 | 33.2 | 16.6 | 13.3 | 11.1 | 27.7 | 13.9 | 11.1 | 9.2 | 26.2 | 13.1 | 10.5 | 8.7 | 24.9 | 12.5 | 10.0 | 8.3 |
| | 40 | .408 | 60.6 | 30.3 | 24.2 | 20.2 | 55.1 | 27.5 | 22.0 | 18.4 | 40.4 | 20.2 | 16.2 | 13.5 | 33.7 | 16.8 | 13.5 | 11.2 | 31.9 | 15.9 | 12.8 | 10.6 | 30.3 | 15.1 | 12.1 | 10.1 |
| 46002 (P1-135) Orange | 20 | .377 | 55.9 | 28.0 | 22.4 | 18.6 | 50.8 | 25.4 | 20.3 | 16.9 | 37.3 | 18.6 | 14.9 | 12.4 | 31.1 | 15.5 | 12.4 | 10.4 | 29.4 | 14.7 | 11.8 | 9.8 | 28.0 | 14.0 | 11.2 | 9.3 |
| | 25 | .437 | 64.9 | 32.5 | 26.0 | 21.6 | 59.0 | 29.5 | 23.6 | 19.7 | 43.3 | 21.6 | 17.3 | 14.4 | 36.1 | 18.0 | 14.4 | 12.0 | 34.2 | 17.1 | 13.7 | 11.4 | 32.5 | 16.2 | 13.0 | 10.8 |
| | 30 | .497 | 73.8 | 36.9 | 29.5 | 24.6 | 67.1 | 33.5 | 26.8 | 22.4 | 49.2 | 24.6 | 19.7 | 16.4 | 41.0 | 20.5 | 16.4 | 13.7 | 38.8 | 19.4 | 15.5 | 12.9 | 36.9 | 18.4 | 14.8 | 12.3 |
| | 40 | .622 | 92.3 | 46.2 | 36.9 | 30.8 | 83.9 | 42.0 | 33.6 | 28.0 | 61.5 | 30.8 | 24.6 | 20.5 | 51.3 | 25.6 | 20.5 | 17.1 | 48.6 | 24.3 | 19.4 | 16.2 | 46.2 | 23.1 | 18.5 | 15.4 |
| 46014 (P1-160) Olive | 20 | .648 | 96.3 | 48.1 | 38.5 | 32.1 | 87.5 | 43.8 | 35.0 | 29.2 | 64.2 | 32.1 | 25.7 | 21.4 | 53.5 | 26.7 | 21.4 | 17.8 | 50.7 | 25.3 | 20.3 | 16.9 | 48.1 | 24.1 | 19.3 | 16.0 |
| | 25 | .796 | 118 | 59.1 | 47.3 | 39.4 | 107.5 | 53.7 | 43.0 | 35.8 | 78.8 | 39.4 | 31.5 | 26.3 | 65.6 | 32.8 | 26.3 | 21.9 | 62.2 | 31.1 | 24.9 | 20.7 | 59.1 | 29.5 | 23.6 | 19.7 |
| | 30 | .891 | 132 | 66.1 | 52.9 | 44.1 | 120 | 60.1 | 48.1 | 40.1 | 88.2 | 44.1 | 35.3 | 29.4 | 73.5 | 36.7 | 29.4 | 24.5 | 69.6 | 34.8 | 27.8 | 23.2 | 66.1 | 33.1 | 26.4 | 22.0 |
| | 40 | 1.11 | 164 | 82.2 | 65.8 | 54.8 | 149 | 74.7 | 59.8 | 49.8 | 110 | 54.8 | 43.8 | 36.5 | 91.3 | 45.7 | 36.5 | 30.4 | 86.5 | 43.3 | 34.6 | 28.8 | 82.2 | 41.1 | 32.9 | 27.4 |
| | | | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH |
| | | | Gal Per Acre 20" | | | | Gal Per Acre 22" | | | | Gal Per Acre 30" | | | | Gal Per Acre 36" | | | | Gal Per Acre 38" | | | | Gal Per Acre 40" | | | |

* 45907 (P1-032) thru 45925 (P1-055) uses 46336 (R1-100) yellow restrictor.
Actual performance may vary due to many factors, a physical calibration is always recommended.

HIGH VOLUME ORIFICES

| Orifice Size | P S I | G P M | 20" Spacing | | | | 22" Spacing | | | | 30" Spacing | | | | 36" Spacing | | | | 38" Spacing | | | | 40" Spacing | | | |
|----------------------------------|-------------|-------------|-------------|-------|-------|-------|-------------|-------|-------|-------|-------------|-------|-------|-------|-------------|-------|-------|-------|-------------|-------|-------|-------|-------------|-------|-------|-------|
| | | | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH | 2 MPH | 4 MPH | 5 MPH | 6 MPH |
| 46050 (P1-216) * Yellow | 20 | .691 | 103 | 51.3 | 41.0 | 34.2 | 93.2 | 46.6 | 37.3 | 31.1 | 68.4 | 34.2 | 27.3 | 22.8 | 57.0 | 28.0 | 22.8 | 19.0 | 54.0 | 27.0 | 21.6 | 18.0 | 51.3 | 25.6 | 20.5 | 17.1 |
| | 25 | .756 | 112 | 56.1 | 44.9 | 37.4 | 102 | 51.0 | 40.8 | 34.0 | 74.8 | 37.4 | 29.9 | 24.9 | 62.4 | 31.2 | 24.9 | 20.8 | 59.1 | 29.5 | 23.6 | 19.7 | 56.1 | 28.1 | 22.4 | 18.1 |
| | 30 | .903 | 134 | 67.1 | 53.7 | 44.7 | 122 | 61.0 | 48.8 | 40.6 | 89.4 | 44.7 | 35.8 | 29.8 | 74.5 | 37.3 | 29.8 | 24.8 | 70.6 | 35.3 | 28.2 | 23.5 | 67.1 | 33.5 | 26.8 | 22.4 |
| | 40 | .982 | 146 | 72.9 | 58.3 | 48.6 | 133 | 66.3 | 53.0 | 44.2 | 97.2 | 48.6 | 38.9 | 32.4 | 81.0 | 40.5 | 32.4 | 27.0 | 76.7 | 38.4 | 30.7 | 25.6 | 72.9 | 36.5 | 29.2 | 24.3 |
| 46051 (P1-218) Purple | 20 | .787 | 117 | 58.4 | 46.8 | 39.0 | 106 | 53.1 | 42.5 | 35.4 | 77.9 | 39.0 | 31.2 | 26.0 | 64.9 | 32.5 | 26.0 | 21.6 | 61.5 | 30.8 | 24.6 | 20.5 | 58.4 | 29.2 | 23.4 | 19.5 |
| | 25 | .885 | 131 | 65.7 | 52.5 | 43.8 | 119 | 59.7 | 47.8 | 39.8 | 87.6 | 43.8 | 35.0 | 29.2 | 73.0 | 36.5 | 29.2 | 24.3 | 69.1 | 34.6 | 27.7 | 23.0 | 65.7 | 32.8 | 26.3 | 21.9 |
| | 30 | 1.03 | 152 | 76.2 | 60.9 | 50.8 | 138 | 69.2 | 55.4 | 46.2 | 102 | 50.8 | 40.6 | 33.9 | 84.6 | 42.3 | 33.9 | 28.2 | 80.2 | 40.1 | 32.1 | 26.7 | 76.2 | 38.1 | 30.5 | 25.4 |
| | 40 | 1.12 | 166 | 83.1 | 66.5 | 55.4 | 151 | 75.6 | 60.5 | 50.4 | 111 | 55.4 | 44.3 | 36.9 | 92.4 | 46.2 | 36.9 | 30.8 | 87.5 | 43.7 | 35.0 | 29.2 | 83.1 | 41.6 | 33.2 | 27.7 |
| 46052 (P1-220) Pink | 20 | .913 | 136 | 67.8 | 54.2 | 45.2 | 123 | 61.6 | 49.3 | 41.1 | 90.4 | 45.2 | 36.2 | 30.1 | 75.3 | 37.7 | 30.1 | 25.1 | 71.4 | 35.7 | 28.5 | 23.8 | 67.8 | 33.9 | 27.1 | 22.6 |
| | 25 | 1.03 | 152 | 76.2 | 60.9 | 50.8 | 138 | 69.2 | 55.4 | 46.2 | 102 | 50.8 | 40.6 | 33.9 | 84.6 | 42.3 | 33.9 | 28.2 | 80.2 | 40.1 | 32.1 | 26.7 | 76.2 | 38.1 | 30.5 | 25.4 |
| | 30 | 1.19 | 177 | 88.7 | 71.0 | 59.1 | 161 | 80.6 | 64.5 | 53.8 | 118 | 59.1 | 47.3 | 39.4 | 98.6 | 49.3 | 39.4 | 32.9 | 93.4 | 46.7 | 37.3 | 31.1 | 88.7 | 44.3 | 35.5 | 29.6 |
| | 40 | 1.30 | 193 | | | | | | | | | | | | | | | | | | | | | | | |