

Crop Water Use by Growth Stage – Dry Beans



Weekly ETgage® Change in Inches

| Crop Stage | Kc | 1.00 | 1.10 | 1.20 | 1.30 | 1.40 | 1.50 | 1.60 | 1.70 | 1.80 | 1.90 | 2.00 | 2.10 | 2.20 | 2.30 | 2.40 | 2.50 | 2.60 | 2.70 | 2.80 | 2.90 | 3.00 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Emergence - 10% | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.17 | 0.18 |
| Cover 10 - 50% | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.17 | 0.18 |
| Cover 50 - 80% | 0.48 | 0.48 | 0.53 | 0.58 | 0.62 | 0.67 | 0.72 | 0.77 | 0.82 | 0.86 | 0.91 | 0.96 | 1.01 | 1.06 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.34 | 1.39 | 1.44 |
| Cover 80% - Full | 0.81 | 0.81 | 0.89 | 0.97 | 1.05 | 1.13 | 1.22 | 1.30 | 1.38 | 1.46 | 1.54 | 1.62 | 1.70 | 1.78 | 1.86 | 1.94 | 2.03 | 2.11 | 2.19 | 2.27 | 2.35 | 2.43 |
| Full Cover | 1.00 | 1.00 | 1.10 | 1.20 | 1.30 | 1.40 | 1.50 | 1.60 | 1.70 | 1.80 | 1.90 | 2.00 | 2.10 | 2.20 | 2.30 | 2.40 | 2.50 | 2.60 | 2.70 | 2.80 | 2.90 | 3.00 |
| Pod Elongation | 1.00 | 1.00 | 1.10 | 1.20 | 1.30 | 1.40 | 1.50 | 1.60 | 1.70 | 1.80 | 1.90 | 2.00 | 2.10 | 2.20 | 2.30 | 2.40 | 2.50 | 2.60 | 2.70 | 2.80 | 2.90 | 3.00 |
| Pod Fill | 0.83 | 0.83 | 0.91 | 1.00 | 1.08 | 1.16 | 1.25 | 1.33 | 1.41 | 1.49 | 1.58 | 1.66 | 1.74 | 1.83 | 1.91 | 1.99 | 2.08 | 2.16 | 2.24 | 2.32 | 2.41 | 2.49 |
| Dry Down | 0.59 | 0.59 | 0.65 | 0.71 | 0.77 | 0.83 | 0.89 | 0.94 | 1.00 | 1.06 | 1.12 | 1.18 | 1.24 | 1.30 | 1.36 | 1.42 | 1.48 | 1.53 | 1.59 | 1.65 | 1.71 | 1.77 |
| Senescens | 0.30 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.60 | 0.63 | 0.66 | 0.69 | 0.72 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 |
| Maturity | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 |

This chart can be used with readings from an ETgage® or other ET reference. First, identify the change in the ET rate across the horizontal row and then identify the current growth stage in the left column. Follow the two columns to the point where they intersect to identify the ET rate to use in your irrigation scheduling. When planning irrigation, account for soil moisture, precipitation, weather conditions, and the ET rate for growth stage of your crop.