**Table S4:** Studies (n = 23) evaluated in the systematic review, including common and scientific name of the weed species, their troublesome rank as per 2019-20 WSSA national surveys, encoded references, cropping system under study, stage of weed growth at the time of water use (WU) measurement, factors investigated in each study along with their values, WU metric, and actual measured amount of WU.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species (common and scientific name)** | **WSSA troublesome rank\*** | **Reference**  **code†** | **Cropping system** | **Weed growth stage at measurement** | **Factor investigated** | **Factor value** | **Metric** | **Water use** |
| buffalo bur  (*Solanum rostratum* Dunal) | UR | A(G) | - | Varies depending on year investigated | No external factor | NA | WUE-1 | 536 ml H2O g-1 d. wt. |
| Canada thistle (*Cirsium arvense* (L.) Scop.) | B8, G9 | T(F) | corn | 63-65 BBCH‡ | No external factor | NA | Tq | 0.016 kg H2O d-1 |
| S(F) | vineyard | 16/19 BBCH; 1.22 LAI | T | 2.1 mm H2O d-1 m-2 of soil |
| common cocklebur  (*Xanthium strumarium* L.) | UR | D(F) | - | - | T (°C) | 35 | T | 3.2 g H2O dm-2 hr-1 |
| - | - | 28 | T | 1.9 g H2O dm-2 hr-1 |
| O(F) | soybean | 2640 cm2 leaf area | No external factor | NA | Tq | 653 g H2O plant-1 |
| A(G) | - | Varies depending on year investigated | WUE-1 | 415 ml H2O g-1 d. wt. |
| common lambsquarters  (*Chenopodium album* L.) | B3 | S(F) | vineyard | 16/18 BBCH; 0.76 LAI | No external factor | NA | T | 2.2 mm H2O d-1 m-2 of soil |
| B(G) | - | 0-45 DAP | WUE-1 | 435 ml H2O g-1 d. wt. |
| A(G) | - | Varies depending on year investigated | WUE-1 | 658 ml H2O g-1 d. wt. |
| common mallow  (*Malva neglecta* Wallr.) | UR | S(F) | vineyard | 51/55 BBCH; 0.93 LAI | No external factor | NA | T | 4.5 mm H2O d-1 m-2 of soil |
| common mugwort  (*Artemisia vulgaris* L.) | UR | T(F) | - | 67-73 BBCH | No external factor | NA [2006,  2007]‡‡ | Tq | 0.077 kg H2O d-1 |
| - | 67-75 BBCH | Tq | 0.084 kg H2O d-1 |
| common purslane  (*Portulaca oleracea* L.) | UR | B(G) | - | 0-45 DAP | No external factor | NA | WUE-1 | 288 ml H2O g-1 d. wt. |
| A(G) | - | Varies depending on year investigated | WUE-1 | 281 ml H2O g-1 d. wt. |
| common reed  (*Phragmites australis* (Cav.) Trin. ex Steud.) | UR | W(G) | - | 42 DAP; 18.1 cm2 leaf area | Haplotypes, T (°C), CO2 (ppm) | Eurasian haplotype, 32/31, 400 | T | 5.8 mmol H2O m-2 s-1 |
| - | 42 DAP; 18.5 cm2 leaf area | Eurasian haplotype, 35/24, 650 | T | 6.2 mmol H2O m-2 s-1 |
| - | 42 DAP; 44.3 cm2 leaf area | Gulf Coast haplotype, 32/31, 400 | T | 3.7 mmol H2O m-2 s-1 |
| - | 42 DAP; 38.3 cm2 leaf area | Gulf Coast haplotype, 35/24; 650 | T | 6 mmol H2O m-2 s-1 |
| common sunflower  (*Helianthus annuus* L.) | UR | A(G) | - | Varies depending on year investigated | No external factor | NA | WUE-1 | 577 ml H2O g-1 d. wt. |
| dandelion  (*Taraxacum officinale* F.H. Wigg.) | UR | S(F) | vineyard | 15/18 BBCH; 1.38 LAI | No external factor | T | 2.5 mm H2O d-1 m-2 of soil |
| entire morningglory (*Ipomoea hederacea* var. *integriuscula* Gray) | UR | D(F) | - | - | T (°C) | 35 | T | 2.4 g H2O dm-2 hr-1 |
| - | - | 28 | T | 2.2 g H2O dm-2 hr-1 |
| horseweed (*Erigeron canadensis* L.) | B5, G4 | T(F) | - | 69-89 BBCH | No external factor | NA [2006,  2007] | Tq | 0.116 kg H2O d-1 |
| - | Tq | 0.174 kg H2O d-1 |
| ivyleaf morningglory (*Ipomoea hederacea* Jacq.) | B8, G9 | D(F) | - | - | T (°C) | 35 | T | 2.8 g H2O dm-2 hr-1 |
| - | - | 28 | T | 2.5 g H2O dm-2 hr-1 |
| N(G) | - | 22-29 DAP; 413 cm2 | Herbicide(s); crop-weed interaction | Nontreated; 1 IM plant | ET | 32 ml H2O d-1 |
| - | 22-29 DAP; 8 cm2 | Chlorimuron + metribuzin; 1 IM plant | ET | 2 ml H2O d-1 |
| - | 22-29 DAP; 10 cm2 | Imazaquin; 1 IM plant | ET | 2 ml H2O d-1 |
| - | 22-29 DAP; 304 cm2 | Nontreated; 2 IM plant | ET | 37 ml H2O d-1 |
| - | 22-29 DAP; 8 cm2 | Chlorimuron + metribuzin; 2 IM plant | ET | 1 ml H2O d-1 |
| - | 22-29 DAP; 19 cm2 | Imazaquin; 2 IM plant | ET | 4 ml H2O d-1 |
| Soybean | 22-29 DAP; 289 cm2 (IM§ )+ 299 cm2 (soy¶) | Nontreated; 1 IM plant + 1 soy plant | ET | 32 ml H2O d-1 |
| 22-29 DAP; 5 cm2 (IM) + 292 cm2 (soy) | Chlorimuron + metribuzin; 1 IM plant + 1 soy plant | ET | 23 ml H2O d-1 |
| 22-29 DAP; 15 cm2 (IM) + 291 cm2 (soy) | Imazaquin; 1 IM plant + 1 soy plant | ET | 20 ml H2O d-1 |
| jimsonweed (*Datura stramonium* L.) | UR | D(F) | - | - | T (°C) | 35 | T | 3 g H2O dm-2 hr-1 |
| - | - | 28 | T | 2.9 g H2O dm-2 hr-1 |
| johnsongrass (*Sorghum halepense* (L.) Pers.) | G9 | D(F) | - | - | T (°C) | 35 | T | 0.7 g H2O dm-2 hr-1 |
| - | - | 28 | T | 1.5 g H2O dm-2 hr-1 |
| jointed goatgrass (*Aegilops cylindrica* Host) | UR | I(G) | - | Advanced-tillered stage | Accession §§ | WA | T | 11.4 µg H2O cm-2 s-1 |
| - | OR | T | 10.1 µg H2O cm-2 s-1 |
| - | MT | T | 11.7 µg H2O cm-2 s-1 |
| - | WY | T | 10.9 µg H2O cm-2 s-1 |
| - | NE | T | 7.7 µg H2O cm-2 s-1 |
| - | CO | T | 10.8 µg H2O cm-2 s-1 |
| - | KS | T | 6.7 µg H2O cm-2 s-1 |
| - | KS | T | 7.8 µg H2O cm-2 s-1 |
| - | OK | T | 10.2 µg H2O cm-2 s-1 |
| - | WA | rl | 1.8 s cm-1 |
| - | OR | rl | 2.2 s cm-1 |
| - | MT | rl | 1.8 s cm-1 |
| - | WY | rl | 2 s cm-1 |
| - | NE | rl | 3.3 s cm-1 |
| - | CO | rl | 1.9 s cm-1 |
| - | KS | rl | 3.9 s cm-1 |
| - | KS | rl | 3.2 s cm-1 |
| - | OK | rl | 2.1 s cm-1 |
| H(F) | - | 14 DAP | No external factor | NA | T | 51.2 µg H2O s-1 g-1 d. wt. of spike |
| - | rl | 2.3 s cm-1 |
| J(G) | - | Five tillers | PPFD (uE m-2 s-1) | 125 | T | 4.7 ml H2O d-1 |
| - | 250 | T | 6 µg H2O cm-2 s-1 |
| - | 400 | T | 6.8 µg H2O cm-2 s-1 |
| - | 800 | T | 7.6 µg H2O cm-2 s-1 |
| - | 1100 | T | 7.9 µg H2O cm-2 s-1 |
| - | 1400 | T | 8 µg H2O cm-2 s-1 |
| - | 1850 | T | 8.4 µg H2O cm-2 s-1 |
| - | Leaf T (°C) | 10 | T | 2 µg H2O cm-2 s-1 |
| - | 15 | T | 5.2 µg H2O cm-2 s-1 |
| - | 20 | T | 7.1 µg H2O cm-2 s-1 |
| - | 25 | T | 8.9 µg H2O cm-2 s-1 |
| - | 30 | T | 10 µg H2O cm-2 s-1 |
| - | 35 | T | 10.8 µg H2O cm-2 s-1 |
| - | 40 | T | 13 µg H2O cm-2 s-1 |
| mayweed chamomile (*Anthemis cotula* L.) | UR | M(G) | - | 5-15 cm2 individual leaf area | PPFD (uE m-2 s-1); herbicide | 50; untreated | T | 3.8 µg H2O cm-2 s-1 |
| - | 100; untreated | T | 4 µg H2O cm-2 s-1 |
| - | 200; untreated | T | 4.6 µg H2O cm-2 s-1 |
| - | 400; untreated | T | 5.1 µg H2O cm-2 s-1 |
| - | 800; untreated | T | 5.9 µg H2O cm-2 s-1 |
| - | 1200; untreated | T | 6.4 µg H2O cm-2 s-1 |
| - | 1800; untreated | T | 6.7 µg H2O cm-2 s-1 |
| - | 85; metribuzin-treated | T | 3.6 µg H2O cm-2 s-1 |
| - | 335; metribuzin-treated | T | 3.6 µg H2O cm-2 s-1 |
| - | 1850; metribuzin-treated | T | 4.1 µg H2O cm-2 s-1 |
| mountain sage (*Artemisia frigida*) | UR | A(G) | - | Varies depending on year investigated | No external factor | NA | WUE-1 | 654 ml H2O g-1 d.wt. |
| nightshade (*Solanum* spp.) | UR | - | No external factor | WUE-1 | 587 ml H2O g-1 d.wt. |
| Palmer amaranth (*Amaranthus palmeri* S. Watson) | B1, G1 | Q(F) | corn | 30 DAP until corn physiological maturity | Weed density (plants m-1) | 0 | ET | 67.4 cm H2O |
| 0.5 | ET | 68.9 cm H2O |
| 1 | ET | 69.6 cm H2O |
| 2 | ET | 70.4 cm H2O |
| 4 | ET | 71 cm H2O |
| 8 | ET | 71.5 cm H2O |
| U(F) | cotton | 57 DAP-123 DAP | No external factor | NA | T | 1.2 g H2O cm-2 d-1 |
| gl | 0.4 mol H2O m-2 s-1 |
| D(F) | - | - | T (°C) | 35 | T | 3.9 g H2O dm-2 hr-1 |
| - | - | 28 | T | 1.7 g H2O dm-2 hr-1 |
| perennial ryegrass (*Lolium perenne* L.) | UR | P(G) | - | 66-103 DAP | Water deficit (MPa) | 0 | T | 1024 ml H2O plant-1 |
| - | -0.5 | T | 569 ml H2O plant-1 |
| - | -1 | T | 400 ml H2O plant-1 |
| perennial sowthistle (*Sonchus arvensis* L.) | UR | K(G) | - | 42 DAP; 320 dm2 plant-1 | Soil water (bar) | 0 | T | 5.5 mmol H2O m-2 s-1 |
| - | 42 DAP; 198 dm2 plant-1 | -0.33 | T | 4.5 mmol H2O m-2 s-1 |
| - | 42 DAP; 59 dm2 plant-1 | -1 | T | 3.1 mmol H2O m-2 s-1 |
| - | 42 DAP; 37 dm2 plant-1 | -2 | T | 2 mmol H2O m-2 s-1 |
| - | 42 DAP; 18 dm2 plant-1 | -5 | T | 1.7 mmol H2O m-2 s-1 |
| - | 42 DAP; 184 dm2 plant-1 | PPFD (µE m-2 s-1) | 1015 | T | 4.9 mmol H2O m-2 s-1 |
| - | 42 DAP; 289 dm2 plant-1 | 580 | T | 3.7 mmol H2O m-2 s-1 |
| - | 42 DAP; 187 dm2 plant-1 | 285 | T | 1.5 mmol H2O m-2 s-1 |
| - | 42 DAP; 86 dm2 plant-1 | T (°C) | 30/25 | T | 9.7 mmol H2O m-2 s-1 |
| - | 42 DAP; 227 dm2 plant-1 | 20/15 | T | 4 mmol H2O m-2 s-1 |
| - | 42 DAP; 45 dm2 plant-1 | 10/5 | T | 0.6 mmol H2O m-2 s-1 |
| - | 42 DAP; 320 dm2 plant-1 | Soil water (bar) | 0 | gl | 231 mmol H2O m-2 s-1 |
| - | 42 DAP; 198 dm2 plant-1 | -0.33 | gl | 157 mmol H2O m-2 s-1 |
| - | 42 DAP; 59 dm2 plant-1 | -1 | gl | 100 mmol H2O m-2 s-1 |
| - | 42 DAP; 37 dm2 plant-1 | -2 | gl | 60 mmol H2O m-2 s-1 |
| - | 42 DAP; 18 dm2 plant-1 | -5 | gl | 53 mmol H2O m-2 s-1 |
| - | 42 DAP; 184 dm2 plant-1 | PPFD (µE m-2 s-1) | 1015 | gl | 192 mmol H2O m-2 s-1 |
| - | 42 DAP; 289 dm2 plant-1 | 580 | gl | 137 mmol H2O m-2 s-1 |
| - | 42 DAP; 187 dm2 plant-1 | 285 | gl | 67 mmol H2O m-2 s-1 |
| - | 42 DAP; 86 dm2 plant-1 | T (°C) | 30/25 | gl | 580 mmol H2O m-2 s-1 |
| - | 42 DAP; 227 dm2 plant-1 | 20/15 | gl | 343 mmol H2O m-2 s-1 |
| - | 42 DAP; 45 dm2 plant-1 | 10/5 | gl | 57 mmol H2O m-2 s-1 |
| prickly lettuce (*Lactuca serriola* L.) | UR | T(F) | - | 67-81 BBCH | No external factor | NA [2006,  2007] | Tq | 0.153 kg H2O d-1 |
| - | 63-85 BBCH | Tq | 0.093 kg H2O d-1 |
| prickly pear (*Opuntia polyacantha*) | UR | C(G) | - | 9-month old | Light/Dark (hours), RH (%) | 7 dark, 47 | T | 0.06 g H2O hr-1 |
| - | 17 light, 47 | T | 0.06 g H2O hr-1 |
| - | 7 dark, 47 | T | 0.06 g H2O hr-1 |
| - | 17 light, 90 | T | 0.02 g H2O hr-1 |
| - | 7 dark, 80 | T | 0.01 g H2O hr-1 |
| - | 17 light, 54 | T | 0.12 g H2O hr-1 |
| prostrate knotweed (*Polygonum aviculare* L.) | UR | A(G) | - | Varies depending on year investigated | No external factor | NA | WUE-1 | 678 ml H2O g-1 d.wt. |
| quackgrass (*Elymus repens* (L.) Gould) | UR | K(F) | alfalfa | 35 cm height | Postemergence herbicide | Quizalofop | T | 2.3 µg H2O cm-2 s-1 |
| Haloxyfop | T | 1.3 µg H2O cm-2 s-1 |
| Fluazifop-P | T | 2.9 µg H2O cm-2 s-1 |
| Control | T | 7.2 µg H2O cm-2 s-1 |
| Quizalofop | T | 3.3 µg H2O cm-2 s-1 |
| Haloxyfop | T | 0.9 µg H2O cm-2 s-1 |
| Fluazifop-P | T | 4.3 µg H2O cm-2 s-1 |
| Control | T | 10.3 µg H2O cm-2 s-1 |
| Quizalofop | rl | 21.7 s cm-1 |
| Haloxyfop | rl | 19.7 s cm-1 |
| Fluazifop-P | rl | 15.6 s cm-1 |
| Control | rl | 2.3 s cm-1 |
| Quizalofop | rl | 14.6 s cm-1 |
| Haloxyfop | rl | 26.3 s cm-1 |
| Fluazifop-P | rl | 6.7 s cm-1 |
| Control | rl | 1.1 s cm-1 |
| ragweed parthenium (*Parthenium hysterophorus* L.) | UR | R(F) | - | 5.8 LAI | T (°C); CO2 (µmol CO2 m-2 s-1) | 25; 360 | T | 3.3 mmol H2O m-2 s-1 |
| - | 30; 360 | T | 9.7 mmol H2O m-2 s-1 |
| - | 30; 700 | T | 2.8 mmol H2O m-2 s-1 |
| - | 25; 700 | T | 2.5 mmol H2O m-2 s-1 |
| - | 30; 360 | gl | 0.3 mmol H2O m-2 s-1 |
| - | 30; 700 | gl | 0.2 mmol H2O m-2 s-1 |
| - | 25; 700 | gl | 0.2 mmol H2O m-2 s-1 |
| redroot pigweed (*Amaranthus retroflexus* L.) | B7 | B(G) | - | 0-31 DAP, 0-44 DAP | No external factor | NA | WUE-1 | 261 ml H2O g-1 d.wt. |
| A(G) | - | Varies depending on year investigated | WUE-1 | 305 ml H2O g-1 d.wt. |
| T(F) | - | 69-75 BBCH | Tq | 0.018 kg H2O d-1 |
| Russian thistle (*Salsola tragus* L.) | UR | B(G) | - | 0-31 DAP, 0-43 DAP | No external factor | WUE-1 | 224 ml H2O g-1 d.wt. |
| A(G) | - | Varies depending on year investigated | WUE-1 | 314 ml H2O g-1 d.wt. |
| showy crotalaria (*Crotalaria spectabilis* Roth) | UR | E(G) | - | 35 DAP; 16 dm2 | CO2 (ppm); Nutrient strength | 350; 1/8 | T | 5.2 g H2O dm-2 hr-1 |
| - | 35 DAP; 26 dm2 | 350; 1/2 | T | 5.3 g H2O dm-2 hr-1 |
| - | 35 DAP; 17 dm2 | 675; 1/8 | T | 3.2 g H2O dm-2 hr-1 |
| - | 35 DAP; 40 dm2 | 675; 1/2 | T | 3.6 g H2O dm-2 hr-1 |
| - | 35 DAP; 16 dm2 | 350; 1/8 | rl | 0.4 s cm-1 |
| - | 35 DAP; 26 dm2 | 350; 1/2 | rl | 0.4 s cm-1 |
| - | 35 DAP; 17 dm2 | 675; 1/8 | rl | 0.7 s cm-1 |
| - | 35 DAP; 40 dm2 | 675; 1/2 | rl | 0.6 s cm-1 |
| sicklepod (*Senna obtusifoli*a (L.) H.S. Irwin & Barneby) | UR | O(F) | soybean | 1640 cm2 leaf area | No external factor | NA | Tq | 230 g H2O plant-1 |
| E(G) | - | 35 DAP; 13 dm2 | CO2 (ppm); Nutrient strength | 350; 1/8 | T | 4.6 g H2O dm-2 hr-1 |
| - | 35 DAP; 44 dm2 | 350; 1/2 | T | 5.5 g H2O dm-2 hr-1 |
| - | 35 DAP; 15 dm2 | 675; 1/8 | T | 3.0 g H2O dm-2 hr-1 |
| - | 35 DAP; 59 dm2 | 675; 1/2 | T | 3.5 g H2O dm-2 hr-1 |
| - | 35 DAP; 13 dm2 | 350; 1/8 | rl | 0.4 s cm-1 |
| - | 35 DAP; 44 dm2 | 350; 1/2 | rl | 0.3 s cm-1 |
| - | 35 DAP; 15 dm2 | 675; 1/8 | rl | 0.8 s cm-1 |
| - | 35 DAP; 59 dm2 | 675; 1/2 | rl | 0.6 s cm-1 |
| smooth brome (*Bromus inermis* Leyss.) | G3 | B(G) | - | 0-121 DAP, 0-93 DAP, 0-93 DAP, 0-112 DAP | No external factor | NA | WUE-1 | 784 ml H2O g-1 d.wt. |
| A(G) | - | Varies depending on year investigated | WUE-1 | 977 ml H2O g-1 d.wt. |
| smooth pigweed (*Amaranthus hybridus* L.) | B7 | F(F) | cotton | July 17, 1981 | Soil water status\*\*; Leaf side | High; Abaxial | T | 22.5 µg H2O cm-2 s-1 |
| Low; Abaxial | T | 18.3 µg H2O cm-2 s-1 |
| Aug 29, 1981 | High; Abaxial | T | 9.2 µg H2O cm-2 s-1 |
| High; Adaxial | T | 11.0 µg H2O cm-2 s-1 |
| High; Abaxial | T | 9.2 µg H2O cm-2 s-1 |
| High; Adaxial | T | 8.0 µg H2O cm-2 s-1 |
| velvetleaf (*Abutilon theophrasti* Medik.) | UR | G(F) | soybean | Anthesis | Monocultured/intercropped soybean/weed (plants m-2); measurement time (hr) | Monocultured soybean (32.5); 1000 | T | 165.4 mg H2O m-2 s-1 |
| Intercropped soybean (32.5, 5); 1000 | T | 218.1 mg H2O m-2 s-1 |
| Monocultured weed (5); 1000 | T | 218.9 mg H2O m-2 s-1 |
| Intercropped weed (5, 32.5); 1000 | T | 193.8 mg H2O m-2 s-1 |
| Monocultured soybean (32.5); 1400 | T | 266.7 mg H2O m-2 s-1 |
| Intercropped soybean (32.5, 5); 1400 | T | 189.4 mg H2O m-2 s-1 |
| Monocultured weed (5); 1400 | T | 267.2 mg H2O m-2 s-1 |
| Intercropped weed (5, 32.5); 1400 | T | 141.9 mg H2O m-2 s-1 |
| Monocultured soybean (32.5); 1000 | gl | 1.0 cm s-1 |
| Intercropped soybean (32.5, 5) ; 1000 | gl | 1.0 cm s-1 |
| Monocultured weed (5); 1000 | gl | 1.5 cm s-1 |
| Intercropped weed (5, 32.5); 1000 | gl | 0.8 cm s-1 |
| Monocultured soybean (32.5); 1400 | gl | 1.1 cm s-1 |
| Intercropped soybean (32.5, 5); 1400 | gl | 0.6 cm s-1 |
| Monocultured weed (5); 1400 | gl | 1.1 cm s-1 |
| Intercropped weed (5, 32.5); 1400 | gl | 0.4 cm s-1 |
| V(G) | - | 41 DAP; 258 cm2 plant-1 | Water Availability†† | Low [2007] | T | 0.30 kg H2O plant-1 |
| - | 41 DAP; 329 cm2 plant-1 | Medium [2007] | T | 0.44 kg H2O plant-1 |
| - | 41 DAP; 688 cm2 plant-1 | High [2007] | T | 0.84 kg H2O plant-1 |
| - | 61 DAP; 961 cm2 plant-1 | Low [2007] | T | 1.81 kg H2O plant-1 |
| - | 61 DAP; 1293 cm2 plant-1 | Medium [2007] | T | 2.49 kg H2O plant-1 |
| - | 61 DAP; 2964 cm2 plant-1 | High [2007] | T | 6.37 kg H2O plant-1 |
| - | 77 DAP; 1046 cm2 plant-1 | Low [2007] | T | 8.16 kg H2O plant-1 |
| - | 77 DAP; 2122 cm2 plant-1 | Medium [2007] | T | 11.05 kg H2O plant-1 |
| - | 77 DAP; 5374 cm2 plant-1 | High [2007] | T | 19.72 kg H2O plant-1 |
| - | 42 DAP; 13 cm2 plant-1 | Low [2008] | T | 0.19 kg H2O plant-1 |
| - | 42 DAP; 26 cm2 plant-1 | Medium[2008] | T | 0.21 kg H2O plant-1 |
| - | 42 DAP; 103 cm2 plant-1 | High[2008] | T | 0.38 kg H2O plant-1 |
| - | 61 DAP; 33 cm2 plant-1 | Low [2008] | T | 0.27 kg H2O plant-1 |
| - | 61 DAP; 792 cm2 plant-1 | Medium [2008] | T | 1.65 kg H2O plant-1 |
| - | 61 DAP; 1209 cm2 plant-1 | High [2008] | T | 4.19 kg H2O plant-1 |
| - | 75 DAP; 407 cm2 plant-1 | Low [2008] | T | 1.38 kg H2O plant-1 |
| - | 75 DAP; 1145 cm2 plant-1 | Medium [2008] | T | 5.77 kg H2O plant-1 |
| - | 75 DAP; 2208 cm2 plant-1 | High [2008] | T | 9.92 kg H2O plant-1 |
| G(G) | - | Flowering | Leaf water potential (MPa) | -1.5 | T | 278.7 mg H2O m-2 s-1 |
| - | -1.9 | T | 151 mg H2O m-2 s-1 |
| - | -2.3 | T | 72.6 mg H2O m-2 s-1 |
| - | -2.7 | T | 43.4 mg H2O m-2 s-1 |
| witchgrass (*Panicum capillare* L.) | UR | B(G) | - | 0-46 DAP, 0-44 DAP | No external factor | NA | WUE-1 | 254 ml H2O g-1 d.wt. |

\* Ranking assigned to weed species; B: Top 10 troublesome weeds (B1-B10) among all broadleaf crops, fruits and vegetables as per 2019 WSSA National weed survey dataset, G: Top 10 troublesome weeds (G1-G10) among all grass crops, pasture and turf as per 2020 WSSA National weed survey dataset, where UR means “unranked” and is designated to weed species exclusive of these datasets. † Alphabetic code given to publications along with “F” or “G” in the parenthesis indicating whether study was conducted in “Field” or “Greenhouse”. ‡ BBCH: Biologische Bundesanstalt, Bundessortenamt und CHemische Industrie scale used to describe the phenological development stage of different plant species. The BBCH scale has two digits; the first and second digit represent principal and secondary growth stages, respectively. § IM: Ivyleaf morningglory. ¶ Soy: soybean. \*\* Soil water status; High: Preplant and subsequent irrigation of 10 cm in late June. Low: Preplant irrigation only. †† Water availability; Low: Fraction of transpirable soil water (FTSW) at which one-third of transpiration occurred. Medium: FTSW at which two-thirds of transpiration occurred. High: FTSW at which full transpiration occurred. ‡‡If WU data is given separately for more than one-year, specific year corresponding to the respective WU values is given in the square bracket in the “Factor value” column. §§ Abbreviated values of “Accession” factor represent the states of the USA.