**Low-input maize-based cropping systems implementing IWM match conventional maize monoculture’s productivity and weed control**

**Guillaume Adeux 1,2, Simon Giuliano 1\*, Stéphane Cordeau 2, Jean-Marie Savoie 3 and Lionel Alletto 1**

1 Université de Toulouse - École d’ingénieurs de Purpan, UMR 1248 AGIR – 75, voie du TOEC, BP 57611, F-31076 Toulouse cedex 3, France ; guillaume.adeux@inra.fr (G.A.) ; simon.giuliano@purpan.fr (S.G.) ; jm.savoie@purpan.fr (J-.M.S.); lionel.alletto@lrmp.chambagri.fr (L.A.)

2 Agroécologie, AgroSup Dijon, INRA, Univ. Bourgogne Franche-Comté, F-21000 Dijon, France ; guillaume.adeux@inra.fr (G.A.) ; stephane.cordeau@inra.fr (S.C.)

3 Université de Toulouse - École d’ingénieurs de Purpan, UMR 1201 DYNAFOR – 75, voie du TOEC, BP 57611, F-31076 Toulouse cedex 3, France.; jm.savoie@purpan.fr (J.M.S.)

\* Correspondence: simon.giuliano@purpan.fr; Tel. +33 5 61 15 30 07

**Supplementary information Table 2:**

**Weed species recorded in maize (also named by their EPPO codes, http://eppt.eppo.org/search.php), biological characteristics and relative Potential of Infestation (1) and frequency of occurrence (%).**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Latin Name | EPPO  Code | Cotyledon type † | Raunkiaer  Type ‡ | Relative  Potential of Infestation (%) | Frequency of occurrence (%) |
| *Abutilon theophrasti* Medik. | ABUTH | D | Therophyte | <1 | <1 |
| *Alopecurus myosuroides* Huds. | ALOMY | M | Therophyte | <1 | <1 |
| *Amaranthus hybridus* L. | AMACH | D | Therophyte | <1 | 2.3 |
| *Atriplex patula* L. | ATXPA | D | Therophyte | <1 | 17.6 |
| *Avena fatua* L. | AVEFA | M | Therophyte | <1 | 18.8 |
| *Avena strigosa* Schreb. | AVESG | M | Therophyte | <1 | 4.1 |
| *Calystegia sepium* (L.) R.Br. | CAGSE | D | Geophyte | <1 | 4.7 |
| *Cerastium glomeratum* Thuill. | CERGL | D | Therophyte | <1 | <1 |
| *Chenopodium album* L. | CHEAL | D | Therophyte | <1 | 2 |
| *Chenopodium polyspermum* L. | CHEPO | D | Therophyte | <1 | 10.3 |
| *Cirsium arvense* (L.) Scop. | CIRAR | D | Geophyte | <1 | 3.1 |
| *Convolvulus arvensis* L. | CONAR | D | Geophyte | 4.6 | 45.7 |
| *Cynodon dactylon* (L.) Pers. | CYNDA | M | Geophyte | <1 | <1 |
| *Datura stramonium* L. | DATST | D | Therophyte | <1 | <1 |
| *Digitaria sanguinalis* (L.) Scop. | DIGSA | M | Therophyte | 1.8 | 10.1 |
| *Echinochloa crus-galli* (L.) Beauv. | ECHCG | M | Therophyte | 55.9 | 60.3 |
| *Epilobium tetragonum* L. | EPIAD | D | Hemicryptophyte | <1 | 2.9 |
| *Erigeron sumatrensis* Retz. | ERISU | D | Therophyte | <1 | 2.1 |
| *Geranium rotundifolium* L. | GERRT | D | Therophyte | <1 | <1 |
| *Helminthotheca echioides* (L.) Holub | PICEC | D | Hemicryptophyte | <1 | <1 |
| *Hypericum humifusum* L. | HYPHU | D | Therophyte | only in biomass survey | only in biomass survey |
| *Hypericum perforatum* L. | HYPPE | D | Hemicryptophyte | <1 | 1.3 |
| *Hypochaeris radicata* L. | HRYRA | D | Hemicryptophyte | <1 | <1 |
| *Kickxia* spp. (*spuria*, *elatine*) (L.) Dumort. | KICSS | D | Therophyte | 10.9 | 68.3 |
| *Lathyrus tuberosus* L. | LTHTU | D | Hemicryptophyte | only in biomass survey | only in biomass survey |
| *Lolium* spp.L. | LOLSS | M | Therophyte | <1 | 7.8 |
| *Lysimachia arvensis (L.) U.Manns & Anderb.* | ANGAR | D | Therophyte | 2.5 | 19.8 |
| *Lythrum hyssopifolia* L. | LYTHY | D | Therophyte | <1 | 3.9 |
| *Medicago arabica* (L.) Huds. | MEDAB | D | Therophyte | only in biomass survey | only in biomass survey |
| *Persicaria* spp. (*maculosa* Gray., *lapathifolia* (L.) Delarbre*)* | POLSS | D | Therophyte | 9.9 | 65 |
| *Phalaris paradoxa* L. | PHAPA | M | Therophyte | <1 | <1 |
| *Plantago major* L. | PLAMA | D | Hemicryptophyte | <1 | <1 |
| *Polygonum aviculare* L. | POLAV | D | Therophyte | <1 | 20.6 |
| *Polygonum convolvulus* L. | POLCO | D | Therophyte | <1 | 11.1 |
| *Portulaca oleracea* L. | POROL | D | Therophyte | <1 | 1.3 |
| *Potentilla reptans* L. | PTLRE | D | Hemicryptophyte | <1 | <1 |
| *Prunus spinosa* L. | PRNSN | D | Phanerophyte | <1 | <1 |
| *Ranunculus sardous* Crantz | RANSA | D | Therophyte | <1 | 12.7 |
| *Rubus fruticosus* L. | RUBFR | D | Hemicryptophyte | <1 | 1.5 |
| *Senecio vulgaris* L. | SENVU | D | Therophyte | <1 | 8.3 |
| *Setaria glauca* (L.) Beauv. | SETPU | M | Therophyte | <1 | 3.1 |
| *Solanum nigrum* L. | SOLNI | D | Therophyte | <1 | 8.7 |
| *Sonchus* spp. (*oleraceus* L., *asper* (L.) Hill) | SONSS | D | Therophyte | 2.6 | 46.2 |
| *Sorghum halepense* (L.) Pers. | SORHA | M | Geophyte | <1 | <1 |
| *Stellaria media* (L.) Vill. | STEME | D | Therophyte | only in biomass survey | only in biomass survey |
| *Taraxacum officinale* Weber | TAROF | D | Hemicryptophyte | <1 | <1 |
| *Trifolium* spp.L. | TRFSS | D | Hemicryptophyte | <1 | 1.1 |
| *Verbena officinalis* L. | VEBOF | D | Hemicryptophyte | 1.8 | 15.8 |
| *Veronica arvensis* L. | VERAR | D | Therophyte | <1 | <1 |
| *Vicia benghalensis*L. | VICBE | D | Therophyte | <1 | 4.4 |
| *Viola arvensis* Murray | VIOAR | D | Therophyte | 1.6 | 6 |
| *Vulpia myuros*(L.) C.C.Gmel | VLPMY | D | Therophyte | only in biomass survey | only in biomass survey |

† Monocotyledon (M) or Dicotyledon (D)

‡ Raunkiær C (1934) The Life Forms of Plants and Statistical Plant Geography. (collected translated papers of C. Raunkiaer). London, UK: Oxford University Press. 632 p

(1) The Potential of Infestation was calculated as the maximum density *d* over the two sampling dates of a given weed species *i* observed in a given quadrat *j* during one crop season (e.g. at maize 6-8 leaf and flowering stages), which was then averaged over the *n* quadrats of the plot [45]:

45. Cordeau, S.; Dessaint, F.; Munier-Jolain, N.M. Long-term assessment of integrated weed management cropping systems in france. *Aspects of Applied Biology* **2015**, 275-278.