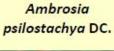


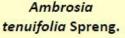
## Ambrosia in Europe

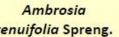
habitus, leaves, seeds

Ambrosia artemisiifolia L. maritima L.











Authors: Gerhard Karrer, Bruno Chauvel, Johan van

Valkenburg, Guillaume Fried, Melinda Leitsch-

Vitalos, Matthias Kropf, Sandra Citterio

Ambrosia tomentosa Nutt.









Identification tool funded by the EU-COST-Action FA-1203

,Sustainable management of Ambrosia artemisiifolia in

Europe'. Available from: http://ragweed.eu





































## Six *Ambrosia* species in Europe comparison of traits



Species   A. artemisiifolia L.   A. maritima L.   A. psilostachya DC.   A. tenuifolia Spreng.   A. trifida L.   A. tomentoso	
Plant size (cm) 10 to 250 20-80 10 to 90 20-100 40 to 400 15-60  Belowground Taproot Taproot Root sprouter Root sprouter Taproot Root sprouter  +/- intensively branched, branches with wide angles Stems lignified towards the base, sprouts from lower aerial stem buds  Pinnatifid to bipinnate, Pinnatifid to bipinnate, Pinnatifid, rarely entire; leaf Bipinnate to pinnatifid; leaf Palmate, 1 to 5 Pinnatifid, leaf	ed
Belowground Taproot Taproot Root sprouter Root sprouter Taproot Root sprouter  +/- intensively branched, branches with wide angles Stems lignified towards the base, sprouts from lower aerial stem buds  Pinnatifid to bipinnate, Pinnatifid to bipinnate, Pinnatifid, rarely entire; leaf Bipinnate to pinnatifid; leaf Palmate, 1 to 5  Root sprouter Few branches, with narrow angles angles  Few branches, with narrow angles  Few branches, with narrow angles  Pinnatifid to bipinnate, Pinnatifid, rarely entire; leaf Bipinnate to pinnatifid; leaf Palmate, 1 to 5  Pinnatifid, leaf	ed
+/- intensively branched, branches with wide angles stems lignified towards the base, sprouts from lower aerial stem buds  Pinnatifid to bipinnate,  Pinnatifid to bipinnate,  Pinnatifid to bipinnate,  Pinnatifid, rarely entire; leaf  Pew branches, with narrow few branches, with narrow angles  angles  Pew branches, with narrow few branches, with narrow angles  Proposition of the proposition	:ed
Stem  branches with wide angles stems lignified towards the base, sprouts from lower aerial stem buds Pinnatifid to bipinnate, Pinnatifid to bipinnate, Pinnatifid to bipinnate, Pinnatifid, rarely entire; leaf Bipinnate to pinnatifid; leaf Palmate, 1 to 5 Pinnatifid, leaf	ed
rarely entire; leaf segments leaf segments rounded; broadened and separated, rarely narrow; lower leaves with distinct narrow petiole; upper leaves alternate; long and short hairs mixed segments rounded; segments lineal and segments as narrow as the lobes; glabrous or rachis, lineal, connected; few short hairs; all upper leaves alternate; lower leaves with distinct narrow petiole; upper leaves alternate; dense and short hairs mixed segments as narrow as the lobes; glabrous or rachis, lineal, connected; few short hairs; all upper leaves with distinct narrow petiole; upper leaves alternate; narrow petiole; upper leaves alternate; dense short hairs short hairs greenish-grey	le and ternate; se white
Diaspore (mm) 2-4; 1-seeded 3.5-5; 1-seeded 2-3; 1-seeded 2-3.5; 1-seeded >6; 1-seeded 4-6; 2-seeded	
Few hairs and glands; 2-5 short lateral spines with sharpened tips; dark brown short olive to dark brown  Few hairs, dense glands; Few glands and short hairs; Short hairs and glands, 2-5 Glabrous or few +/- glabrous, 4-6 distinct lateral spines blunt, short lateral spines sharpened tips; dark brown olive to dark brown olive to dark brown brown to black brown	aight or
Reproductive mode  Sexual (seeds)  Sexual (seeds)  Mostly vegetative, rarely by seeds  Vegetative; very rarely by Sexual (seeds)  Vegetative, and sexual (seeds)	ds)
Smell (leaves) None Distinct, aromatic Distinct None None None	
Origin N-America Europe, Africa N-America S-America N-America N-America	
Habitat types (in Europe) Field, riverbank, ruderal, roadside, orchard, pasture  Coastal dune Sandy coast, riverbank, field, Abandoned field, grassland, pasture, sandy riverbank  grassland, pasture, sandy riverbank ruderal, orchard, vineyard  Coastal dune  Coastal dune  Abandoned field, grassland, pasture, sandy riverbank ruderal, orchard, vineyard	d,
Distribution in Europe  Widespread; all Europe  Critically endangered, in many places extinct; formerly cultivated  Critically endangered, in many places extinct; formerly cultivated  Scattered; European Scattered; Southern Europe  Scattered; Southern Europe  Scattered; Southern Europe  and Southern  Europe	)
Allergenicity High Unknown Medium Unknown High Medium	