



Ambrosia in Europe

habitus, leaves, seeds

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,Sustainable management of *Ambrosia artemisiifolia* in
Europe'. Available from: <http://ragweed.eu>

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*Ambrosia
artemisiifolia* L.



*Ambrosia
maritima* L.



*Ambrosia
psilostachya* DC.



*Ambrosia
tenuifolia* Spreng.



*Ambrosia
trifida* L.



*Ambrosia
tomentosa* Nutt.





Six *Ambrosia* species in Europe

comparison of traits

Species	<i>A. artemisiifolia</i> L.	<i>A. maritima</i> L.	<i>A. psilostachya</i> DC.	<i>A. tenuifolia</i> Spreng.	<i>A. trifida</i> L.	<i>A. tomentosa</i> Nutt.
Life form	Annual	Biennial, perennial	Perennial	Perennial	Annual	Perennial
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
Stem	+/- intensively branched, branches with wide angles	Intensively branched, stems lignified towards the base, sprouts from lower aerial stem buds	Few branches, with narrow angles	Few branches, with narrow angles	+/- intensively branched	Few subordinated branches
Leaves	Pinnatifid to bipinnate, rarely entire; leaf segments broadened and separated, rarely narrow; lower leaves with distinct narrow petiole; upper leaves alternate; long and short hairs mixed	Pinnatifid to bipinnate, leaf segments rounded; lower leaves with distinct stalks; upper leaves alternate; dense hairs all around	Pinnatifid, rarely entire; leaf segments lineal and connected, often sharpened towards the tip; +/- sessile; upper leaves alternate; dense short hairs	Bipinnate to pinnatifid; leaf segments as narrow as the rachis, lineal, connected; lower leaves with distinct narrow petiole; upper leaves alternate; dense short hairs	Palmate, 1 to 5 lobes; glabrous or few short hairs; all leaves opposite	Pinnatifid, leaf segments narrow and rounded; middle and upper leaves alternate; extremely dense white hairs below; above greenish-grey
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
Diaspore coat	Few hairs and glands; 2-5 short lateral spines with sharpened tips; dark brown	Few hairs, dense glands; 4-6 distinct lateral spines + 1 central lobed spine; olive to dark brown	Few glands and short hairs; blunt, short lateral spines few or none; dark brown	Short hairs and glands, 2-5 lateral short blunt spines; olive to dark brown	Glabrous or few hairs; 2-4 indistinct lateral spines; dark brown to black	+/- glabrous, 4-10 distinct long straight or hooked spines; light brown
Reproductive mode	Sexual (seeds)	Sexual (seeds)	Mostly vegetative, rarely by seeds	Vegetative; very rarely by seeds	Sexual (seeds)	Vegetative, and sexual (seeds)
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, dry grassland, roadside, ruderal, orchard, vineyard	Abandoned field, grassland, pasture, sandy coast, marshland, vineyard	Field, sandy riverbank	Abandoned field, pasture
Distribution in Europe	Widespread; all Europe except Mediterranean and far North	Critically endangered, in many places extinct; formerly cultivated	Scattered; European lowlands and coastal areas, more frequent to the South	Scattered; Southern Europe	Scattered; Central and Southern Europe	Very rare; Spain
Allergenicity	High	Unknown	Medium	Unknown	High	Medium