Taxon: Euphorbia officinarum L. **Family:** Euphorbiaceae

Common Name(s): cardón moruno
resin spurge

Synonym(s): Euphorbia officinarum var. genuina Maire
Tithymalus officinarum (L.) H.Karst.

Assessor: Chuck Chimera **Status:** Approved **End Date:** 27 Jan 2025

WRA Score: 4.0 **Designation:** L **Rating:** Low Risk

Keywords: Shrub, Succulent, Spiny, Toxic Latex, Dehiscent Capsules

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y = -3, n = 0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	0 = low, 1 = intermediate, 2 = high (see Appendix 2)	High
202	Quality of climate match data	0 = low, 1 = intermediate, 2 = high (see Appendix 2)	High
203	Broad climate suitability (environmental versatility)	y = 1, n = 0	y
204	Native or naturalized in regions with tropical or subtropical climates	y = 1, n = 0	y
205	Does the species have a history of repeated introductions outside its natural range?	y= -2, ? = -1, n = 0	?
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n = question 205	n
302	Garden/amenity/disturbance weed	y = 1*multiplier (see Appendix 2), n = 0	n
303	Agricultural/forestry/horticultural weed	y = 2*multiplier (see Appendix 2), n = 0	n
304	Environmental weed	y = 2*multiplier (see Appendix 2), n = 0	n
305	Congeneric weed	y = 1*multiplier (see Appendix 2), n = 0	y
401	Produces spines, thorns or burrs	y = 1, n = 0	y
402	Allelopathic		
403	Parasitic	y = 1, n = 0	n
404	Unpalatable to grazing animals	y = 1, n = -1	y
405	Toxic to animals	y = 1, n = 0	y
406	Host for recognized pests and pathogens	y = 1, n = 0	n
407	Causes allergies or is otherwise toxic to humans	y = 1, n = 0	y
408	Creates a fire hazard in natural ecosystems	y = 1, n = 0	n
409	Is a shade tolerant plant at some stage of its life cycle		
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y = 1, n = 0	n

Qsn #	Question	Answer Option	Answer
411	Climbing or smothering growth habit	y = 1, n = 0	n
412	Forms dense thickets	y = 1, n = 0	y
501	Aquatic	y = 5, n = 0	n
502	Grass	y = 1, n = 0	n
503	Nitrogen fixing woody plant	y = 1, n = 0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y = 1, n = 0	n
601	Evidence of substantial reproductive failure in native habitat	y = 1, n = 0	n
602	Produces viable seed	y = 1, n = -1	y
603	Hybridizes naturally		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y = -1, n = 0	n
606	Reproduction by vegetative fragmentation	y = 1, n = -1	n
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y = 1, n = -1	n
702	Propagules dispersed intentionally by people	y = 1, n = -1	y
703	Propagules likely to disperse as a produce contaminant	y = 1, n = -1	n
704	Propagules adapted to wind dispersal	y = 1, n = -1	n
705	Propagules water dispersed	y = 1, n = -1	n
706	Propagules bird dispersed	y = 1, n = -1	n
707	Propagules dispersed by other animals (externally)	y = 1, n = -1	y
708	Propagules survive passage through the gut	y = 1, n = -1	n
801	Prolific seed production (>1000/m2)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides		
804	Tolerates, or benefits from, mutilation, cultivation, or fire		
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)		

Supporting Data:

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	[Used medicinally but not domesticated] "Local and Conventional Medicinal Uses. Euphorbia officinarum is used in traditional medicine to treat skin diseases and ophthalmological diseases. Nevertheless, the plant extract should be used in low concentrations due to its high toxicity [6,25]. The main interest of these large areas of Euphorbia for beekeepers is to produce pure Tikiout (tachelhit) or Daghmus (Arabic) honey. These succulents have a large number of tiny 5owers at the top of each spiny appendage. Filled with nectar, these 5owers provide enough material to make honey known for its therapeutic properties [25]. The honey is used for the sterility, intestinal gas, eczema, psoriasis, skin diseases, antiseptic, against cancer, asthma, ulcer, hot water burns, chickenpox “Cold” bowel, and throat [25]. On the other hand, it is recommended for pyelonephritis and cystitis to use the powder of E. officinarum, mixed with honey [26]."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2025). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2025). Personal Communication	NA

201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	High
	Source(s)	Notes
	KewScience. (2025). Plants of the World Online . http://powo.science.kew.org. [Accessed 6 Jan 2025]	"The native range of this species is Mauritania to Algeria. It is a succulent subshrub and grows primarily in the subtropical biome."

202	Quality of climate match data	High
	Source(s)	Notes
	KewScience. (2025). Plants of the World Online . http://powo.science.kew.org. [Accessed 6 Jan 2025]	"The native range of this species is Mauritania to Algeria. It is a succulent subshrub and grows primarily in the subtropical biome."

203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	LLIFLE. (2025). Euphorbia officinarum L. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/29923/Euphorbia_officinarum. [Accessed 22 Jan 2025]	[Broad elevation range in arid, tropical & subtropical regions] "Origin and Habitat: Mauritania, Western Sahara, Morocco, Algeria. Altitude range: It grows at low and medium altitude, from sea level to 1900 metres above sea level. Habitat and origin: It grows in different kinds of arid environment, but often with relatively high atmospheric humidity due to oceanic influence."

Qsn #	Question	Answer
204	**Native or naturalized in regions with tropical or subtropical climates**	**y**
	Source(s)	**Notes**
	KewScience. (2025). Plants of the World Online . http://powo.science.kew.org. [Accessed 6 Jan 2025]	"The native range of this species is Mauritania to Algeria. It is a succulent subshrub and grows primarily in the subtropical biome."

205	**Does the species have a history of repeated introductions outside its natural range?**	**?**
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Descriptions of uses and cultivation techniques are provided on a number of horticultural websites, suggesting introduction outside its native range, but the extent of introductions is unclear
	GBIF Secretariat (2025). Euphorbia officinarum L. GBIF Backbone Taxonomy. Checklist dataset. https://www.gbif.org/species/3067956. [Accessed 22 Jan 2025]	Only recorded from within its native range

301	**Naturalized beyond native range**	**n**
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	GBIF Secretariat (2025). Euphorbia officinarum L. GBIF Backbone Taxonomy. Checklist dataset. https://www.gbif.org/species/3067956. [Accessed 22 Jan 2025]	No evidence
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2025). Plants of Hawai'i. http://www.plantsofhawaii.org. [Accessed 6 Jan 2025]	No evidence in the Hawaiian Islands to date

302	**Garden/amenity/disturbance weed**	**n**
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2025). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 22 Jan 2025]	No evidence

303	**Agricultural/forestry/horticultural weed**	**n**
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2025). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 22 Jan 2025]	No evidence
	Global Invasive Species Database (2025). https://www.iucngisd.org/gisd/. [Accessed 22 Jan 2025]	No evidence

304	**Environmental weed**	**n**

Qsn #	Question	Answer
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2025). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 22 Jan 2025]	No evidence
	GBIF Secretariat (2025). Euphorbia officinarum L. GBIF Backbone Taxonomy. Checklist dataset. https://www.gbif.org/species/3067956. [Accessed 22 Jan 2025]	No evidence

305	Congeneric weed	y
	Source(s)	**Notes**
	Weber, E. (2017). Invasive Plant Species of the World, 2nd Edition: A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	[Euphorbia esula] "Leafy spurge has become one of the worst invaders in northern America causing both ecological and economic damage."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	Numerous Euphorbia species have become invasive weeds

401	Produces spines, thorns or burrs	y
	Source(s)	**Notes**
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"Its spines are strong, rigid, arranged in pairs on the angles, usually up to 2 cm long, and grow at intervals along the stems. The spines shield is elongated and joined in a horny margin forming a continuous line along the angle."

402	Allelopathic	
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Unknown. No evidence found

403	Parasitic	n
	Source(s)	**Notes**
	Eggli, U. (2002). Illustrated handbook of succulent plants: Dicotyledons. Springer-Verlag, Berlin - Heidelberg - New York	"Tufted shrubs 1 - 2 m, branching from the base" [Euphorbiaceae. No evidence]

Qsn #	Question	Answer
404	Unpalatable to grazing animals	y
	Source(s)	Notes
	Gardner, C. M. & Gardner, B. G. (2019). Flora of The Mediterranean with California, Chile, Australia & South Africa. An Illustrated Guide. Bloomsbury Publishing Plc, London	[Toxicity and spines likely render plants unpalatable] "Heavily spined cactoid domes of Euphorbia officinarum (Euphorbiaceae) are dominant in areas of limestone in western Morocco, manifesting as botanical crown-of-thorns starfish intent on consuming all before them."
	LLIFLE. (2025). Euphorbia officinarum L. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/29923/Euphorbia_officinarum. [Accessed 22 Jan 2025]	[Toxicity and spines likely render plants unpalatable] "The stem abound in a milky acrid juice which corrodes the skin wherever it comes in contact with it. Spines shield: Elongated, joined in a horny margin forming a continuous line along the angle. Stipular spines: Strong, rigid, arranged in pairs on the angles, spreading, c. 5-15 mm long. Leaves: The leaves are reduced to tiny tubercles located on thorns."

405	Toxic to animals	y
	Source(s)	Notes
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"Euphorbia officinarum is used in traditional medicine to treat skin diseases and ophthalmological diseases. Nevertheless, the plant extract should be used in low concentrations due to its high toxicity [6,25]."

406	Host for recognized pests and pathogens	n
	Source(s)	Notes
	Martin, C.A. (2025). Virtual Library of Phoenix Landscape Plants - Euphorbia officinarum subsp. echinus. https://www.public.asu.edu/~camartin/plants/Plant%20html%20files/euphorbiaechinus.html. [Accessed 22 Jan 2025]	"Disease and Pests: None."

407	Causes allergies or is otherwise toxic to humans	y
	Source(s)	Notes
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"Euphorbia officinarum is used in traditional medicine to treat skin diseases and ophthalmological diseases. Nevertheless, the plant extract should be used in low concentrations due to its high toxicity [6,25]."

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"This monoecious succulent is about 1-1.5m tall." [No evidence. Unlikely given succulent habit]

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes

Qsn #	Question	Answer
	Martin, C.A. (2025). Virtual Library of Phoenix Landscape Plants - Euphorbia officinarum subsp. echinus. https://www.public.asu.edu/~camartin/plants/Plant%20html%20files/euphorbiaechinus.html. [Accessed 22 Jan 2025]	" Light: Full sun to partial shade."
	Fried, D. L. (2019). The Art of Southwest Landscaping. Page Publishing Inc., NY	"This euphorbia likes full sun or light, filtered shade."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	n
	Source(s)	**Notes**
	Fried, D. L. (2019). The Art of Southwest Landscaping. Page Publishing Inc., NY	" ... prefers well-draining soil."
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"It is found on the various substrate but escapes as Argan trees from clayey soils (areas of spreading wadis and basins)"

411	Climbing or smothering growth habit	n
	Source(s)	**Notes**
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"This monoecious succulent is about 1-1.5 m tall."

412	Forms dense thickets	y
	Source(s)	**Notes**
	Gardner, C. M. & Gardner, B. G. (2019). Flora of The Mediterranean with California, Chile, Australia & South Africa. An Illustrated Guide. Bloomsbury Publishing Plc, London	"Heavily spined cactoid domes of Euphorbia officinarum (Euphorbiaceae) are dominant in areas of limestone in western Morocco, manifesting as botanical crown-of-thorns starfish intent on consuming all before them."
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"In Morocco, E. officinarum is distributed at forms, dense stands along the Atlantic Ocean, from the south of Oued Souss to Cape Barbas, and arrives, with less frequency, as far as Cape Blanc in Mauritania [11]."

501	Aquatic	n
	Source(s)	**Notes**
	LLIFLE. (2025). Euphorbia officinarum L. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/29923/Euphorbia_officinarum. [Accessed 22 Jan 2025]	[Terrestrial] "Habitat and origin: It grows in different kinds of arid environment, but often with relatively high atmospheric humidity due to oceanic influence."

502	Grass	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	USDA, Agricultural Research Service, National Plant Germplasm System. (2025). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch. [Accessed 22 Jan 2025]	"Family:Euphorbiaceae Subfamily: Euphorbioideae Tribe: Euphorbieae Subtribe: Euphorbiinae"

503	Nitrogen fixing woody plant	n
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2025). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch. [Accessed 22 Jan 2025]	"Family: Euphorbiaceae Subfamily: Euphorbioideae Tribe: Euphorbieae Subtribe: Euphorbiinae"

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"This monoecious succulent is about 1-1.5m tall."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	**Notes**
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"Geographic Distribution. Mauritania, Western Sahara, Morocco, and Algeria are the origin and the habitat of E. officinarum L. and E. officinarum subs. Echinus in the southwest of Morocco from coast to Anti-Atlas Mountains cactiform; it can, therefore, be considered endemic to Morocco [11]." [No evidence]

602	Produces viable seed	y
	Source(s)	**Notes**
	LLIFLE. (2025). Euphorbia officinarum L. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/29923/Euphorbia_officinarum. [Accessed 24 Jan 2025]	"Seeds: One per capsule variable in size depending on the subspecies, coarsely wrinkled whitish, yellowish or greyish; no caruncled."
	WRA Specialist. (2025). Personal Communication	Euphorbia officinarum can be propagated through seeds or cuttings. However, propagation via cuttings is often recommended, as it may be more reliable and straightforward. This preference could suggest that seed propagation poses challenges, possibly due to the rarity of seeds or issues with their viability.

Qsn #	Question	Answer
603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. (2025). Personal Communication	Unknown. No evidence found

604	Self-compatible or apomictic	
	Source(s)	Notes
	Chamkhi, I., Hnini, M., & Aurag, J. (2022). Conventional medicinal uses, phytoconstituents, and biological activities of Euphorbia officinarum L.: A systematic review. Advances in Pharmacological and Pharmaceutical Sciences, 2022(1), 9971085	"In addition, the flowers are simple, arranged in spherical structures known as cyathia. The cyathia are attractive, brownish-red [1]. While the lateral cyathia are hermaphrodites, central cyathia are usually male, solitary but sometimes up to 5 on sessile or shortly pedunculate cymes arranged in the upper half of the branches. the cyathium may be yellow to red-purple, depending on the subspecies. Furthermore, the fruits are subglobular, obtusely lobed 2.5–5 × 2.2–4mm hairless, smooth or finely stippled, green or red-purple."
	Faboyede, A. O. (2015). Biosystematic studies in the genus euphorbia L. in Nigeria, PhD Dissertation. University of Lagos	[Unknown. Self-compatibility documented in E. hyssopifolia, E. heterophylla and E. hirta.] "Fruit sets were observed in all the bagged inflorescences. These were taken as indication of self compatibility. The seeds were allowed to dry and planted inside petri- dishes lined with cotton wool pre- soaked in distilled water. This was done to determine the viability of the seeds. Germination was observed in all the petri- dishes."

605	Requires specialist pollinators	n
	Source(s)	Notes
	Kubitzki, K. (ed.). (2014). The Families and Genera of Vascular Plants. Vol. XI. Flowering Plants. Eudicots: Malpighiales. Springer, New York	"Euphorbs with fully pseudanthial inflorescences have either "normal" unisexual flowers (Dalechampia, Pera) or highly reduced unisexual flowers united in a cyathium (Euphorbia and relatives in Euphorbieae). In the latter case the staminate flowers are reduced to a single stamen and the pistillate flowers to a single pistil, with perianth absent in both cases. In both situations, pollinators visit the clusters of flowers as if they were a single flowerhence, application of the term pseudanthium (false flower) or blossom. Pollination of euphorbs with pseudanthial inflorescences is often highly generalized."
	Zomlefer, W.B. (1994). Guide to Flowering Plant Families. The University of North Carolina Press, Chapel Hill & London	"Most euphorbs easily attract pollinators (mostly flies) with the nectar secreted by the extrastaminal disc or glands"
	Terrab, A., Marconi, A., Bettar, I., Msanda, F., & Díez, M. J. (2014). Palynological characterisation of Euphorbia honeys from Morocco. Palynology, 38(1), 138-146	[Euphorbia officinarum subsp. echinus visited by honeybees] "Pollen was analysed in 30 unifloral Euphorbia honey samples from the Ifni Massif Region (Anti Atlas, Morocco). The honey samples were directly provided by beekeepers. The quantitative analysis showed that nectar is the main honey source in the samples studied. The qualitative analysis of the samples showed the presence of 35 taxa belonging to 17 families. The Moroccan Euphorbia honeys of the studied region are characterized by their low´medium number of pollen grains (NGP; mean ¼ 5700), 76% of the honeys belong to Class I and II of Maurizio, and by their low honeydew indicator (HDE/NGPn < 0.28), wich indicates their floral origin. For the Euphorbia officinarum subsp. echinus honeys, the most characteristic accompanying species are Eryngium ilicifolium, present in > 90% of the samples, followed by Bellis sp., Capsella f. and Reseda sp. (85%). However, for the E. regis-jubae honeys, the most characteristic accompanying species are Crepis f., present in 100% of the samples."

606	Reproduction by vegetative fragmentation	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	EarthOne. (2025). Euphorbia officinarum. https://earthone.io/plant/euphorbia%20officinarum. [Accessed 27 Jan 2025]	[Vegetative propagation methods suggests natural vegetative spread would be unlikely] "Propagate Euphorbia officinarum through stem cuttings. Allow the cut end to dry and callous over for a few days before planting it in well-draining soil. Propagation is best done during the warmer months when the plant is actively growing."

607	Minimum generative time (years)	
	Source(s)	**Notes**
	LLIFLE - Encyclopedia of living forms. (2025). Euphorbia echinus. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/13374/Euphorbia_officinarum_subs._echinus. [Accessed 27 Jan 2025]	[Euphorbia officinarum subs. echinus with a slow growth rate. Presumably >1 year to maturity] "Growth rate: It grows well, though slowly, but it possible to increase the speed of growth to some extent by providing adequate amount of water, warmth, and a liquid fertilizer diluted half strength during the active growing season, but it's susceptible to rotting if too wet. Most plants will offset readily, and large bushes can be produced in a few years."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	**Notes**
	FloraVeg.EU. (2025). Database of European Vegetation, Habitats and Flora. www.floraveg.eu	"Dispersal mode: Myrmecochory"
	Kubitzki, K. (ed.). (2014). The Families and Genera of Vascular Plants. Vol. XI. Flowering Plants. Eudicots: Malpighiales. Springer, New York	"The typical Euphorbiaceous fruit (upon drying) dehisces explosively into three 1- or 2-seeded merocarps (cocci)."

702	Propagules dispersed intentionally by people	y
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Sometimes intentionally dispersed by people, particularly for ornamental purposes or as part of cultivation efforts.

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	**Notes**
	Kubitzki, K. (ed.). (2014). The Families and Genera of Vascular Plants. Vol. XI. Flowering Plants. Eudicots: Malpighiales. Springer, New York	"The typical Euphorbiaceous fruit (upon drying) dehisces explosively into three 1- or 2-seeded merocarps (cocci)." [Genus description. Theoretically possible if cultivated with other plants, but no evidence found to date]

704	Propagules adapted to wind dispersal	n
	Source(s)	**Notes**
	FloraVeg.EU. (2025). Database of European Vegetation, Habitats and Flora. www.floraveg.eu	"Dispersal mode: Myrmecochory"

705	Propagules water dispersed	n
	Source(s)	**Notes**
	FloraVeg.EU. (2025). Database of European Vegetation, Habitats and Flora. www.floraveg.eu	"Dispersal mode: Myrmecochory"

Qsn #	Question	Answer
	LLIFLE. (2025). Euphorbia officinarum L. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/29923/Euphorbia_officinarum. [Accessed 27 Jan 2025]	"Habitat and origin: It grows in different kinds of arid environment, but often with relatively high atmospheric humidity due to oceanic influence." [Not primarily adapted for water dispersal, though they might occasionally be moved short distances by rainwater or surface runoff.]

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	FloraVeg.EU. (2025). Database of European Vegetation, Habitats and Flora. www.floraveg.eu	"Dispersal mode: Myrmecochory"
	Kubitzki, K. (ed.). (2014). The Families and Genera of Vascular Plants. Vol. XI. Flowering Plants. Eudicots: Malpighiales. Springer, New York	"The typical Euphorbiaceous fruit (upon drying) dehisces explosively into three 1- or 2-seeded merocarps (cocci)." [Genus description]

707	Propagules dispersed by other animals (externally)	y
	Source(s)	**Notes**
	FloraVeg.EU. (2025). Database of European Vegetation, Habitats and Flora. www.floraveg.eu	"Dispersal mode: Myrmecochory"

708	Propagules survive passage through the gut	n
	Source(s)	**Notes**
	Kubitzki, K. (ed.). (2014). The Families and Genera of Vascular Plants. Vol. XI. Flowering Plants. Eudicots: Malpighiales. Springer, New York	"The typical Euphorbiaceous fruit (upon drying) dehisces explosively into three 1- or 2-seeded merocarps (cocci)." [Genus description. No evidence of consumption or internal dispersal]

801	Prolific seed production (>1000/m2)	
	Source(s)	**Notes**
	LLIFLE. (2025). Euphorbia officinarum L. http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Euphorbiaceae/29923/Euphorbia_officinarum. [Accessed 27 Jan 2025]	[Unlikely. One seeded capsules] "Fruits: Subglobular, obtusely lobed 2.5-5 x 2.2-4 mm hairless, smooth or finely stippled, green or red-purple, but always with a deep purple keel. Peduncle long, reflexed greenish to reddish-purple. Seeds: One per capsule variable in size depending on the subspecies, coarsely wrinkled whitish, yellowish or greyish; no caruncled."

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Unknown

803	Well controlled by herbicides	
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Unknown. No information on herbicide efficacy or chemical control of this species

Qsn #	Question	Answer
804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Unknown

805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	Unknown

Summary of Risk Traits:

Euphorbia officinarum is a spiny succulent plant about 1–1.5m tall, native to arid environments of Morocco, Mauritania, Western Sahara, and Algeria. It produces a milky sap that contains various chemical compounds, some of which have potential therapeutic properties. While Euphorbia officinarum has potential medicinal uses, it's crucial to handle it with caution because the sap can cause skin irritation and is toxic if ingested. It is not currently known to be naturalized or invasive anywhere in the world.

High Risk / Undesirable Traits
• Grows and could spread in regions with tropical climates
• Broad elevation range
• Other Euphorbia species are invasive
• Spiny
• Unpalatable to browsing/grazing animals
• Caustic and toxic latex
• Forms dense stands in native range
• Reproduces by seed
• Dispersed by explosively dehiscent capsules, ants, and intentional cultivation
• Gaps in biological and ecological information may reduce accuracy of risk prediction

Low Risk Traits
• No reports of invasiveness or naturalization, but limited evidence of widespread introduction outside native range
• Grows best in high light (dense shade may limit ability to spread)
• Not reported to spread vegetatively under natural conditions

Second Screening Results for Herbs or Low Stature Shrubby Life Forms

(A) Reported as a weed of cultivated lands? No
Outcome = Accept (Low Risk)