Taxon: Mammillaria prolifera (Mill.) Haw.

Family: Cactaceae

Common Name(s): grape cactus
hair-covered cactus
Texas nipple-cactus
West Indian nipple-cactus

Synonym(s): Cactus prolifer Mill.
Chilita prolifera (Mill.) Orcutt
Ebnerella prolifera (Mill.) Buxb.
Escobariopsis prolifera (Mill.) Doweld
Neomammillaria prolifera (Mill.) Britton & Rose

Assessor: Chuck Chimera **Status:** Approved **End Date:** 9 Oct 2026

WRA Score: 9.0 **Designation:** H(HPWRA) **Rating:** High Risk

Keywords: Naturalizing, Spiny, Apomictic, Vegetative Offsets, Fleshy-fruit

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	n
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	n
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n = question 205	y
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	n
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	n
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	n
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	y = 1, n = 0	y

Qsn #	Question	Answer Option	Answer
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y = 1, n = 0	n
411	Climbing or smothering growth habit	y = 1, n = 0	n
412	Forms dense thickets	y = 1, n = 0	n
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	y = 1, n = -1	y
605	Requires specialist pollinators	y = -1, n = 0	n
606	Reproduction by vegetative fragmentation	y = 1, n = -1	y
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	2
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
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	y
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut	y = 1, n = -1	y
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
	Weniger, D. (1984). Cacti of Texas and Neighboring States: A Field Guide. University of Texas Press, Austin, TX	[Not domesticated. Wild populations only] "From Mexico into south Texas to mouth of Pecos River, almost to Rocksprings, Bandera, and Rockport."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2026). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2026). 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
	POWO (2026). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 7 Oct 2026]	"The native range of this species is Texas to NE. Mexico, Cuba to Hispaniola. It is a succulent subshrub and grows primarily in the seasonally dry tropical biome."

202	Quality of climate match data	High
	Source(s)	Notes
	POWO (2026). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 7 Oct 2026]	"The native range of this species is Texas to NE. Mexico, Cuba to Hispaniola. It is a succulent subshrub and grows primarily in the seasonally dry tropical biome."

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	LLIFLE. (2026). Mammillaria prolifera (Mill.) Haw. https://llifle.net/Encyclopedia/CACTI/Family/Cactaceae/9303/Mammillaria_prolifera. [Accessed 8 Oct 2026]	"Hardiness: Reputedly sensitive to frost , but less so if kept on the dry side prior to, and during, cold weather (hardy to -5° C for short periods). However some warmth throughout the year will increase the grower's success (minimum 5° to 8°C during rest season). "
	POWO (2026). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 8 Oct 2026]	"It is a succulent subshrub and grows primarily in the seasonally dry tropical biome."
	Loflin, B. & Loflin, S. (2009). Texas Cacti: A Field Guide. Texas A&M University Press, College Station, TX	"This cactus is found in gravel and limestone crevices in Tamaulipan thorn scrub and oak-juniper woodlands of southwestern Texas and the Rio Grande Valley at elevations of 0-600 m (0-1,800 ft)."

204	Native or naturalized in regions with tropical or subtropical climates	y

Qsn #	Question	Answer
	Source(s)	**Notes**
	POWO (2026). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 8 Oct 2026]	"The native range of this species is Texas to NE. Mexico, Cuba to Hispaniola. It is a succulent subshrub and grows primarily in the seasonally dry tropical biome."
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2026). Plants of Hawai'i. http://www.plantsofhawaii.org. [Accessed 8 Oct 2026]	[Hawaii Island] "Locality: South Kona District in Milolii" ... "Habitat: Growing along roadsides and residential properties in the milolii neighborhood in South Kona. Numerous clusters are present, some growing out of rock piles." ... "Description: Over 50 individuals-associated vegetation: Leucaena leucocephala and Schinus terebinthifolia. A small clustering cactus of globose stems. Central spines tinged red--fruit, cylindrical, scarlet red." [Botanical specimen details from Murphy, M. on 2023-06-13]

205	**Does the species have a history of repeated introductions outside its natural range?**	**n**
	Source(s)	**Notes**
	POWO (2026). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 8 Oct 2026]	"Potentially naturalizing"
	GBIF Secretariat (2026). Mammillaria prolifera (Mill.) Haw. GBIF Backbone Taxonomy. https://www.gbif.org/taxon/3XSKY. [Accessed 8 Oct 2026]	"Recorded as introduced in 4 countries or islands" [All cited locations are in Galápagos Islands]
	Guerrero, A. M., Pozo, P., Chamorro, S., Guezou, A., & Buddenhagen, C. E. (2008). Baseline data for identifying potentially invasive plants in Puerto Ayora, Santa Cruz Island, Galapagos. Pacific Conservation Biology, 14(2), 93-107	Cultivated

Qsn #	Question	Answer
301	Naturalized beyond native range	y
	Source(s)	**Notes**
	Guerrero, A. M., Pozo, P., Chamorro, S., Guezou, A., & Buddenhagen, C. E. (2008). Baseline data for identifying potentially invasive plants in Puerto Ayora, Santa Cruz Island, Galapagos. Pacific Conservation Biology, 14(2), 93-107	"Table I. List of introduced plant taxa recorded during the inventory of plants on properties in Puerto Ayora , Galapagos (2002-2004) explanation of column codes below table." [Mammillaria prolifera - Cu: Cultivated (introduced, only found in cultivation)]
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2026). Plants of Hawai'i. http://www.plantsofhawaii.org. [Accessed 8 Oct 2026]	[Hawaii Island] "Locality: South Kona District in Milolii" ... "Habitat: Growing along roadsides and residential properties in the milolii neighborhood in South Kona. Numerous clusters are present, some growing out of rock piles." ... "Description: Over 50 individuals-associated vegetation: Leucaena leucocephala and Schinus terebinthifolia. A small clustering cactus of globose stems. Central spines tinged red--fruit, cylindrical, scarlet red." [Botanical specimen details from Murphy, M. on 2023-06-13]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	[References citing naturalization in Galapagos Islands only list this species as cultivated] "Mammillaria prolifera (Mill.) Haw. Cactaceae Synonym/s (n° of refs): Mammillaria prolifera ssp. texana (Mill.) Haw. Total N° of Refs: 2 Habit: Herb Preferred Climate/s: Tropical Origin: N Am Major Pathway/s: Ornamental Dispersed by: Humans, Escapee References: Galapagos Islands-CN-1157, Global-CD-1611."

302	Garden/amenity/disturbance weed	n
	Source(s)	**Notes**
	Ecency. (2026). Most common Mammillaria prolifera. https://ecency.com/@ewkaw/most-common-mammillaria-prolifera#1. [Accessed 8 Oct 2026]	"This is a weed among cacti! It grows fast, spreads like a true weed should, blooms almost all year round, is not very picky and it's easily to get in a supermarket (that's what I got mine)."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	WRA Specialist. (2026). Personal Communication	Primarily cultivated as an ornamental cactus. Although it produces numerous offsets and can form dense clusters, there is insufficient evidence that it commonly behaves as a garden, amenity, or disturbance weed outside cultivation.

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

304	Environmental weed	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

305	Congeneric weed	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Novoa, A., Le Roux, J. J., Robertson, M. P., Wilson, J. R., & Richardson, D. M. (2015). Introduced and invasive cactus species: a global review. AoB Plants, 7, plu078.	"At the genus level, the 57 invasive species belong to just 13 of the 130 genera (Fig. 5A). Opuntia, Cylindropuntia, Harrisia, Hylocereus and Austrocylindropuntia have a significantly higher proportion of invasive species than other genera,while only Mammillaria has a significantly lower incidence of invasiveness (it contains no invasive species)." ... "The most popular cactus species in the global ornamental trade belong to the genus Mammillaria (Novoa et al., unpubl. data); these species are valued for their globose growth form more than any other feature. As no Mammillaria spp. are invasive and no globose taxa are invasive (Fig. 5A and B), it is likely that this genus/growth form poses little risk of invasion or impact due to its ecological strategy."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

401	Produces spines, thorns or burrs	y
	Source(s)	**Notes**
	Weniger, D. (1984). Cacti of Texas and Neighboring States: A Field Guide. University of Texas Press, Austin, TX	"Easily recognized by flexible, hairlike radial spines covering surface, hence name hair-covered cactus"

402	Allelopathic	
	Source(s)	**Notes**
	WRA Specialist. (2026). Personal Communication	Unknown. No evidence found

403	Parasitic	n
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Plants branched; branches 5-20+." [Cactaceae. No evidence]

404	Unpalatable to grazing animals	y
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Spines 30-50 per areole, white to yellow or reddish sometimes tipped dark, puberulent; radial spines 25-40 per areole, white to pale yellow, hairlike, 3-12 × 0.01-0.02 mm, soft, strongly contrasting with relatively rigid, colored central spines; central spines 5-12 per areole, spreading in all directions, straight, 4-9 × 0.11-0.17 mm, puberulent; subcentral spines 0." [Mammillaria prolifera is a spiny cactus, and its dense covering of short radial and central spines likely deters grazing by many herbivores.]
	Gardenia. (2026). Mammillaria. https://www.gardenia.net/genus/mammillaria. [Accessed 9 Oct 2026]	"Toxicity: These succulents are not known to be toxic to humans or animals. However, the spines on these plants can be sharp and cause injury if touched. It's important to handle them with care and keep them away from pets or children who might accidentally touch them. Deer and Rabbit: These succulents are generally resistant to deer and rabbit browsing due to their spines and unpalatable nature."

405	Toxic to animals	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Gardenia. (2026). Mammillaria prolifera (Texas Nipple Cactus). https://www.gardenia.net/plant/mammillaria-prolifera/1000. [Accessed 9 Oct 2026]	"Toxic to Cats No known toxicity Toxic to Dogs No known toxicity Toxic to Horses No known toxicity"
	Gardenia. (2026). Mammillaria. https://www.gardenia.net/genus/mammillaria. [Accessed 9 Oct 2026]	"Toxicity: These succulents are not known to be toxic to humans or animals. However, the spines on these plants can be sharp and cause injury if touched. It's important to handle them with care and keep them away from pets or children who might accidentally touch them."
	Burrows, G. E., & Tyrl, R. J. (2013). Toxic Plants of North America. Second Edition. Wiley-Blackwell, Hoboken, NJ	No evidence in genus
	Wagstaff, D.J. (2008). International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence in genus

406	Host for recognized pests and pathogens	n
	Source(s)	**Notes**
	Gardenia. (2026). Mammillaria prolifera (Texas Nipple Cactus). https://www.gardenia.net/plant/mammillaria-prolifera/1000. [Accessed 9 Oct 2026]	"No serious pest or disease issues. Keep an eye out for mealybugs or red spider. Susceptible to rot if over- watered."
	LLIFLE. (2026). Mammillaria prolifera (Mill.) Haw. https://llifle.net/Encyclopedia/CACTI/Family/Cactaceae/9303/Mammillaria_prolifera. [Accessed 9 Oct 2026]	"Pests & diseases: It may be attractive to a variety of insects, but plants in good condition should be nearly pest-free, particularly if they are grown in a mineral potting-mix, with good exposure and ventilation. Nonetheless, there are several pests to watch for: - Red spiders: Sensitive to red spider mite. Overhead watering is helpful in controlling mites. - Mealy bugs: Occasionally mealy bugs they develop aerial into the new growth among the wool with disfiguring results, but the worst types develop underground on the roots and are invisible except by their effects. - Scales: Scales are rarely a problem. - Rot: Rot it is only a minor problem with cacti if the plants are watered and “aired” correctly. If they are not, fungicides won't help all that much."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	**Notes**
	Gardenia. (2026). Mammillaria. https://www.gardenia.net/genus/mammillaria. [Accessed 9 Oct 2026]	"Toxicity: These succulents are not known to be toxic to humans or animals. However, the spines on these plants can be sharp and cause injury if touched. It's important to handle them with care and keep them away from pets or children who might accidentally touch them."
	Burrows, G. E., & Tyrl, R. J. (2013). Toxic Plants of North America. Second Edition. Wiley-Blackwell, Hoboken, NJ	No evidence in genus
	Wagstaff, D.J. (2008). International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence in genus

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	**Notes**
	Goettsch, B.K., Gómez-Hinostrosa, C. & Terry, M. (2017). Mammillaria prolifera (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152479A121536725. https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152479A121536725.en. [Accessed 9 Oct 2026]	"Plant and Fungal growth forms: SH. Succulent - shrub"

Qsn #	Question	Answer
	WRA Specialist. (2026). Personal Communication	Mammillaria prolifera is a fire-sensitive succulent that does not accumulate the dry, flammable biomass required to create a fire hazard. In its native arid and rocky habitats, it is far more likely to be a victim of fire than a contributor to it.

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	**Notes**
	Gardenia. (2026). Mammillaria prolifera (Texas Nipple Cactus). https://www.gardenia.net/plant/mammillaria-prolifera/1000. [Accessed 9 Oct 2026]	"Easily grown in a standard cactus compost in full sun or bright filtered light. Water moderately when in growth. Make sure you let the soil dry out between waterings. No water should ever be allowed to stand around the roots. Keep the plant dry in winter."
	LLIFLE. (2026). Mammillaria prolifera (Mill.) Haw. https://llifle.net/Encyclopedia/CACTI/Family/Cactaceae/9303/Mammillaria_prolifera. [Accessed 9 Oct 2026]	"Exposition: Outside bright sun, filtered sunlight or afternoon shade, inside it needs bright light, and some direct sun. Subject to sunburn if exposed to direct sun for too long. Tends to bronze in strong light, which encourages flowering and heavy wool and spine production."
	Salas Cruz, L. R. (2014). Aplicación de zeolitas en la propagación, aclimatación y Reintroducción de cactáceas en dos zonas ecológicas del Noreste de México. Doctoral dissertation. Universidad Autónoma de Nuevo León	"Las cactáceas fueron exitosamente establecidas en ambas localidades, M. prolifera obtuvo el mejor porcentaje de sobrevivencia (93%) al ser colocada en sustrato con zeolita, en la exposición solar oriente y bajo la sombra de una planta nodriza." [Translation: The cactaceae were successfully established in both localities, M. prolifera obtained the best percentage of survival (93%) when placed in substrate with zeolite, in the eastern sun exposure and under the shade of a mother plant.]
	WRA Specialist. (2026). Personal Communication	Mammillaria prolifera is shade-tolerant primarily during its seedling stage, a trait that helps it establish under the protection of nurse plants. As a mature plant, it prefers bright, direct light but can adapt to partial shade.

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	n
	Source(s)	**Notes**
	Sukarya, D. G., & Witono, J. R. (Eds.). (2024). 3500 plant species of the Botanic Gardens of Indonesia (Ebook ed.). PT Sukarya & Sukarya Pandetama	"Habitat: Light shade, moderate water and well- drained soil,"
	Gardenia. (2026). Mammillaria prolifera (Texas Nipple Cactus). https://www.gardenia.net/plant/mammillaria-prolifera/1000. [Accessed 8 Oct 2026]	"Soil Type Loam, Sand Soil pH Acid, Alkaline, Neutral Soil Drainage Well-Drained"
	LLIFLE. (2026). Mammillaria prolifera (Mill.) Haw. https://llifle.net/Encyclopedia/CACTI/Family/Cactaceae/9303/Mammillaria_prolifera. [Accessed 8 Oct 2026]	"Soils: It likes very porous standard cactus mix soil with little organic matter (peat, humus)."
	Loflin, B. & Loflin, S. (2009). Texas Cacti: A Field Guide. Texas A&M University Press, College Station, TX	"This cactus is found in gravel and limestone crevices in Tamaulipan thorn scrub and oak-juniper woodlands of southwestern Texas and the Rio Grande Valley at elevations of 0–600 m (0–1,800 ft)."

411	Climbing or smothering growth habit	n
	Source(s)	**Notes**
	Loflin, B. & Loflin, S. (2009). Texas Cacti: A Field Guide. Texas A&M University Press, College Station, TX	"forms dense, low mats of manybranching stems with twisting and curved, hairlike radial spines that overlap and nearly obscure the stems. Fibrous roots produce somewhat flaccid stems with as many as 12–20 stems in a single mound. Stems are spherical, cylindrical, or clavate, 3–9 cm long and 1.2–5.0 cm in diameter. Tubercles, 7–10 mm, support circular, 1.5 mm areoles with white wool."

412	Forms dense thickets	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Loflin, B. & Loflin, S. (2009). Texas Cacti: A Field Guide. Texas A&M University Press, College Station, TX	"forms dense, low mats of many-branching stems with twisting and curved, hairlike radial spines that overlap and nearly obscure the stems."
	WRA Specialist. (2026). Personal Communication	Mammillaria prolifera is a clump-forming cactus that creates dense, low-growing mounds or cushions. While it is found in thicket habitats, it does not possess the growth form of a thicket-forming species. Its dense clusters are a horticultural characteristic of its prolific offsetting, not a description of it as a landscape-dominating, thicket-forming weed.

501	Aquatic	n
	Source(s)	**Notes**
	Loflin, B. & Loflin, S. (2009). Texas Cacti: A Field Guide. Texas A&M University Press, College Station, TX	[Terrestrial] "Habitat This cactus is found in gravel and limestone crevices in Tamaulipan thorn scrub and oak-juniper woodlands of southwestern Texas and the Rio Grande Valley at elevations of 0–600 m (0–1,800 ft)."

502	Grass	n
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	Cactaceae

503	Nitrogen fixing woody plant	n
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	Cactaceae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Plants branched; branches 5-20+. Roots fibrous, upper portion not enlarged. Stems spheric to cylindric-clavate, 3-9 × 1.2-5 cm, somewhat flaccid; tubercles 7-10 × 3.4-5 mm; axils mostly bearing sparse white hairs and slender bristles equaling or exceeding tubercle length; cortex and pith not mucilaginous; latex absent."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	**Notes**
	Goettsch, B.K., Gómez-Hinostrosa, C. & Terry, M. (2017). Mammillaria prolifera (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152479A121536725. https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152479A121536725.en. [Accessed 8 Oct 2026]	"Mammillaria prolifera is listed as Least Concern because it has a very large extent of occurrence and is abundant. Although there are threats in places, they are not sufficient to warrant any concern."

Qsn #	Question	Answer
602	Produces viable seed	y
	Source(s)	**Notes**
	Salas-Cruz, L. R., Foroughbackch-Pournabav, R., Díaz-Jiménez, M. D. L., Cárdenas-Ávila, M. L., & Flores-Valdes, A. (2011). Cacti in vitro germination by using zeolite as alternative substrate. Revista mexicana de ciencias agrícolas, 2(spe3), 565-575	"By using zeolite as an alternative substrate, in vitro germination of six cacti species was evaluated. In vitro seeding was performed for: Astrophytum capricorne A. Dietr. Britton & Rose, A. myriostigma Lem., Echinocereus reichenbachii Terscheck ex Walp. Haage, Escobaria dasyacantha Engelm Britton & Rose, Mammillaria prolifera Mill Haw. and Sclerocactus scheeri Salm- Dyck N. P. Taylor. In order to do this, three particle sizes of zeolite were applied: thin (from 0.71 to 1 mm), medium (from 1.1 to 2 mm) and coarse (2.1 to 3.36 mm of calibration). A total of nine treatments were applied to zeolite's structures of the following granulometric sizes: fine, medium and coarse + distilled water (treatments 1, 2 and 3), three types of zeolites + Murashige and Skoog (MS) (treatment 4, 5 and 6) treatment 7 agar + MS + sucrose, treatment 8, agar + MS; and treatment 9 agar. The germination index evaluation results were statistically analyzed identifying highly significant differences for the variables percentage ($F= 7.036$, $p< 0.01$), speed (7.767, $p< 0.01$) and germination index (4.298, $p< 0.01$). The highest germination values were obtained with agar + MS treatment. The species with the highest germination response was E. dasyacantha (92.6%), followed by A. myriostigma (54.07%). This protocol calls for the convenience of using zeolites as a replacement for agar substrate, thus promoting the cacti in vitro conservation, taking advantage of such profitable substrate because of its abundance and easy acquisition."
	Gardenia. (2026). Mammillaria prolifera (Texas Nipple Cactus). https://www.gardenia.net/plant/mammillaria-prolifera/1000. [Accessed 8 Oct 2026]	"Propagate by seed sown at 66-75°F (19-24C) in early spring or by offsets."
	Sukarya, D. G., & Witono, J. R. (Eds.). (2024). 3500 plant species of the Botanic Gardens of Indonesia (Ebook ed.). PT Sukarya & Sukarya Pandetama	"Propagation: Clump division and seed"
	LLIFLE. (2026). Mammillaria prolifera (Mill.) Haw. https://llifle.net/Encyclopedia/CACTI/Family/Cactaceae/9303/Mammillaria_prolifera. [Accessed 8 Oct 2026]	"Propagation: Direct sow after last frost or (usually) cuttings. Seeds germinate in 7-14 days at 21-27° C in spring"

603	Hybridizes naturally	
	Source(s)	**Notes**
	Butterworth, C. A. (2003). Phylogenetic studies of Tribe Cacteae (Cactaceae) with special emphasis on the genus Mammillaria. Doctoral dissertation, Iowa State University	"Hunt further noted that the only known inter-series hybrid in Mammillaria occurred between series Decipientes and Leptocladodae in the cross between M. decipiens and M. elongata."
	WRA Specialist. (2026). Personal Communication	Unknown. Mammillaria prolifera belongs to a genus in which hybridization is possible, particularly in cultivation, but no evidence documenting natural hybridization by this species in its native habitat was found.

604	Self-compatible or apomictic	y
	Source(s)	**Notes**
	Pimienta-Barrios, E., & del Castillo, R. F. (2002). Reproductive biology. In P. S. Nobel (Ed.), Cacti: Biology and uses (pp. 75-90). University of California Press	"Mammillaria prolifera is apomictic by adventitious embryos. However, some primarily outcrossing (allogamous) taxa, e.g., Mammillaria tenuis and M. zeilmanniana, are partially apomictic by adventitious embryos after endosperm formation."

605	Requires specialist pollinators	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Pimienta-Barrios, E., & del Castillo, R. F. (2002). Reproductive biology. In P. S. Nobel (Ed.), Cacti: Biology and uses (pp. 75–90). University of California Press	"Small bees visit the small, bowl-shaped flowers of Mammillaria spp."

606	**Reproduction by vegetative fragmentation**	y
	Source(s)	**Notes**
	LLIFLE. (2026). Mammillaria prolifera (Mill.) Haw. https://llifle.net/Encyclopedia/CACTI/Family/Cactaceae/9303/Mammillaria_prolifera. [Accessed 9 Oct 2026]	"Mammillaria prolifera ... is a freely clustering species that reproduces easily by cutting, recommended for any collection that needs lots of light with ample airflow. Given the kind of care used on any but the desert forms of cacti, even in a small pot, this little cactus will grow and proliferate its small heads into an interesting cluster."
	East Austin Succulents. (2026). Mammillaria prolifera 'Texas Nipple Cactus'. https://shop.eastaustinsucculents.com/mammillaria-prolifera-texas-nipple-cactus/. [Accessed 9 Oct 2026]	"Please note that this particular cactus tends to fall apart easily when handled and wrapped - however, pups propagate extremely easily! "
	Weniger, D. (1984). Cacti of Texas and Neighboring States: A Field Guide. University of Texas Press, Austin, TX	"Spherical to egg-shaped or short-columnar; when mature, blooming heads 1/2–2 in. diameter, 2 in. tall, producing offsets extremely rapidly 12–20 different-sized heads forming large, low matlike"
	WRA Specialist. (2026). Personal Communication	Mammillaria prolifera is a prolific vegetative reproducer. Its primary method is through the production and natural detachment of offsets, which can grow into new plants.

607	**Minimum generative time (years)**	2
	Source(s)	**Notes**
	CactiGuide.com (2026). My first from seed to flower. https://cactiguide.com/forum/viewtopic.php?t=19925. [Accessed 9 Oct 2026]	" My first from seed to flower Post by dustin0352 » 02 Jan 2011, 16:25 Mamm prolifera sown aprox. 2 years ago (give or take a few months). They seem to be the only plants enjoying this crazy FL weather."
	LizPlants. (2026). How to Grow Mammillaria Cactus. https://lizplants.com/grow/cactus-mammillaria-mammillaria-prolifera. [Accessed 9 Oct 2026]	"Days to maturity: Flowering begins at 2-3 years from seed; mature specimen clusters develop over 3-5 years"

701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	
	Source(s)	**Notes**
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2026). Plants of Hawai'i. http://www.plantsofhawaii.org. [Accessed 9 Oct 2026]	[Occurs along roadside. Possibly established as dumped garden waste] "Locality: South Kona District in Milolii" ... "Habitat: Growing along roadsides and residential properties in the milolii neighborhood in South Kona. Numerous clusters are present, some growing out of rock piles." ... "Description: Over 50 individuals-associated vegetation: Leucaena leucocephala and Schinus terebinthifolia. A small clustering cactus of globose stems. Central spines tinged red--fruit, cylindrical, scarlet red." [Botanical specimen details from Murphy, M. on 2023-06-13]
	WRA Specialist. (2026). Personal Communication	Possibly, mainly via discarded plants and disturbed fill

702	**Propagules dispersed intentionally by people**	y
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Major Pathway/s: Ornamental Dispersed by: Humans, Escapee"

Qsn #	Question	Answer
	Sukarya, D. G., & Witono, J. R. (Eds.). (2024). 3500 plant species of the Botanic Gardens of Indonesia (Ebook ed.). PT Sukarya & Sukarya Pandetama	"Uses: Ornamental plant"

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Major Pathway/s: Ornamental Dispersed by: Humans, Escapee" [No evidence]

704	Propagules adapted to wind dispersal	n
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Fruits bright red, obovoid to clavate-cylindric, 8-20 × 4-5 mm, juicy only in fruit walls; floral remnant persistent. Seeds black, 1-1.3 × 1-1.3 mm, pitted; testa hard; anticlinal cell walls weakly undulate to almost straight; interstices wider than pit diameters; pits bowl-shaped." [No evidence. Fleshy-fruited]

705	Propagules water dispersed	n
	Source(s)	**Notes**
	Loflin, B. & Loflin, S. (2009). Texas Cacti: A Field Guide. Texas A&M University Press, College Station, TX	"Fruits Bright red obovoid, clavate, or cylindrical fruits, 8-20 mm. Seeds Black, obovate to nearly round seeds, 1.0-1.3 mm." [Mammillaria prolifera produces small seeds enclosed in fleshy fruits, but there is no clear evidence that its seeds or fruits are specifically adapted for water dispersal or that hydrochory is an important dispersal mechanism. Incidental movement by runoff cannot be ruled out, but there is no evidence that this has occurred.]
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Tamaulipan thorn scrub, oak-juniper woodlands, gravel, limestone crevices, or litter beneath vegetation, cliffs, hills, valleys, plains; 0-600 m" [Does not occur in riparian habitats]

706	Propagules bird dispersed	y
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Fruits bright red, obovoid to clavate-cylindric, 8-20 × 4-5 mm, juicy only in fruit walls; floral remnant persistent. Seeds black, 1-1.3 × 1-1.3 mm, pitted; testa hard; anticlinal cell walls weakly undulate to almost straight; interstices wider than pit diameters; pits bowl-shaped." [The bright red, edible fruits are a classic ornithochorous (bird-dispersed) syndrome, attracting birds that then disperse the seeds endozoochorously.]
	Freitas, J. G., Gomes, V. G. N., & Batista, F. R. D. C. (2022). Frutos do Cactário Guimarães Duque. Instituto Nacional do Semiárido, Campina Grande	"Tabela 01. Espécies do CAGD observadas em frutificação, local de origem e possíveis dispersores de sementes." [Mammillaria prolifera - Potenciais dispersores = Aves e formigas. Potential dispersal agents = Birds and ants]

707	Propagules dispersed by other animals (externally)	
	Source(s)	**Notes**

Qsn #	Question	Answer
	Freitas, J. G., Gomes, V. G. N., & Batista, F. R. D. C. (2022). Frutos do Cactário Guimarães Duque. Instituto Nacional do Semiárido, Campina Grande	"Tabela 01. Espécies do CAGD observadas em frutificação, local de origem e possíveis dispersores de sementes." [Mammillaria prolifera - Potenciais dispersores = Aves e formigas. Potential dispersal agents = Birds and ants]
	WRA Specialist. (2026). Personal Communication	Possibly dispersed externally by ants, and offsets could potentially attach to animals

708	Propagules survive passage through the gut	y
	Source(s)	**Notes**
	Zarco-Mendoza, P., Ríos-Casanova, L., & Godínez-Álvarez, H. (2018). Dispersal and germination of seeds ingested by carnivores in the Zapotitlan de las Salinas Valley, Mexico. Polibotánica, (46), 139-147	"Other species such as A. conzattii, P. laevigata, C. tortuosa, Chiococca sp., L. camara, and M. carnea neither increase, nor decrease their germination after passing through the digestive tract of carnivores." [THis study in the Zapotitlán de las Salinas Valley, Mexico, compared germination rates of seeds extracted directly from fruits versus those found in carnivore scats. For M. carnea, germination was statistically indistinguishable between the two groups (64% from fruits vs. 73% from scats), confirming that seeds survive gut passage without losing viability]
	Freitas, J. G., Gomes, V. G. N., & Batista, F. R. D. C. (2022). Frutos do Cactário Guimarães Duque. Instituto Nacional do Semiárido, Campina Grande	"Tabela 01. Espécies do CAGD observadas em frutificação, local de origem e possíveis dispersores de sementes." [Mammillaria prolifera - Potenciais dispersores = Aves e formigas. Potential dispersal agents = Birds and ants]
	WRA Specialist. (2026). Personal Communication	While direct studies on this exact species are not available, strong evidence from closely related Mammillaria species confirms that seeds remain viable after gut passage, and this process can even accelerate germination by scarifying the seed coat.

801	Prolific seed production (>1000/m2)	
	Source(s)	**Notes**
	Flora of North America Editorial Committee. (2004). Flora of North America: Volume 4: Magnoliophyta: Caryophyllidae, Part 1. Oxford University Press US, New York and Oxford	"Fruits bright red, obovoid to clavate-cylindric, 8-20 × 4-5 mm, juicy only in fruit walls; floral remnant persistent. Seeds black, 1-1.3 × 1-1.3 mm, pitted; testa hard; anticlinal cell walls weakly undulate to almost straight; interstices wider than pit diameters; pits bowl-shaped." [While Mammillaria prolifera is recognized for its prolific fruit and seed production, there is no scientific data available to confirm that it reaches a seed density of >1,000 per square meter.]

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	**Notes**
	Bowers, J. E. (2005). New evidence for persistent or transient seed banks in three Sonoran Desert cacti. The Southwestern Naturalist, 50(4), 482-487	"Mammillaria seeds evidently survived in or on the soil as long as 6 years, forming a Jong-term persistent seed bank,"
	WRA Specialist. (2026). Personal Communication	Unknown, but congeneric species are capable of forming persistent seed banks

803	Well controlled by herbicides	
	Source(s)	**Notes**
	WRA Specialist. (2026). Personal Communication	Unknown. No information on herbicide efficacy or evidence that this species has been the target of chemical control

804	Tolerates, or benefits from, mutilation, cultivation, or fire	

Qsn #	Question	Answer
	Source(s)	**Notes**
	WRA Specialist. (2026). Personal Communication	Possibly. Roots from cuttings and offsets, and propagators routinely cut clumps apart, so physical damage doesn't appear to kill it, and may spread it.

805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. (2026). Personal Communication	Unknown. No known effective natural enemies locally

Summary of Risk Traits:

High-risk traits
Suited to tropical and subtropical climates (native to the seasonally dry tropical biome)
Naturalized outside its native range (Hawai‘i Island roadsides and residential areas)
Spiny, likely unpalatable to grazers
Shade tolerant as a seedling
Produces viable seed and is self-compatible or apomictic
Spreads vegetatively by offsets and cuttings
Moved intentionally by people through the ornamental trade
Bright red fleshy fruit, likely bird dispersed, with seeds probably surviving gut passage
Reaches reproductive maturity in about 2 years

Low-risk traits
Not spread as a produce contaminant, or by wind or water
No records as a garden, agricultural or environmental weed
No invasive congeners (Mammillaria has no invasive species)
Not toxic to animals or humans, and no allergens
No recognized pests or pathogens beyond common cactus ones
Not a fire hazard (fire-sensitive, low fuel)
Not climbing, smothering or thicket-forming
Narrow climate and soil tolerance (needs well-drained, low-organic soil)
Not aquatic, a grass, a geophyte or nitrogen-fixing
No history of repeated introductions