

Taxon: <i>Arachis glabrata</i> Benth.	Family: Fabaceae
Common Name(s): ornamental peanut perennial forage peanut perennial peanut rhizoma peanut	Synonym(s): <i>Arachis glabrata</i> f. <i>sericeovillosa</i> (Hoehne) F.J.Herm. <i>Arachis glabrata</i> f. <i>typica</i> Hoehne <i>Arachis helodes</i> Mart. ex A.Chev. <i>Arachis prostrata</i> var. <i>pseudomarginata</i> Chodat & Hassl.

Assessor: Chuck Chimera	Status: Approved	End Date: 12 Jan 2024
WRA Score: 2.0	Designation: L	Rating: Low Risk

Keywords: Rhizomatous Herb, Naturalizes, Pasture Forage, Rarely Seeds, Spreads Vegetatively

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	y
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		
304	Environmental weed	y = 2*multiplier (see Appendix 2), n = 0	n
305	Congeneric weed		
401	Produces spines, thorns or burrs	y = 1, n = 0	n
402	Allelopathic	y = 1, n = 0	n
403	Parasitic	y = 1, n = 0	n
404	Unpalatable to grazing animals	y = 1, n = -1	n
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		

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	y
411	Climbing or smothering growth habit		
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	y = 1, n = -1	y
604	Self-compatible or apomictic		
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	1
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		
706	Propagules bird dispersed	y = 1, n = -1	n
707	Propagules dispersed by other animals (externally)	y = 1, n = -1	n
708	Propagules survive passage through the gut	y = 1, n = -1	n
801	Prolific seed production (>1000/m ²)	y = 1, n = -1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides	y = -1, n = 1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y = 1, n = -1	y
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
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"2n = 40; selfed or outcrossing. Ecotypes cross within the species, but also capable of producing shortly rhizomatous, sterile triploids, crossing with the diploid <i>Arachis paraguariensis</i> (section Erectoides) and <i>Arachis kretschmeri</i> (section Procumbentes). Seedling off-types from intra and inter-sectional hybrids are common in nurseries where a range of germplasm is being maintained. Crosses between <i>A. glabrata</i> and other <i>Arachis</i> species, including annual types, have also been obtained."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2024). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2024). 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
	Venuto, B. C., Elkins, W. M., Hintz, R. W., & Reed, R. L. (1997). Seed production, germination, and vigor in <i>Rhizoma</i> perennial peanut (<i>Arachis glabrata</i>). <i>Seed Science and Technology</i> , 25(3), 471-478	"Native to South America "
	USDA, Agricultural Research Service, National Plant Germplasm System. (2024). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch . [Accessed 12 Jan 2024]	"Native Southern America BRAZIL: Brazil [Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, São Paulo] SOUTHERN SOUTH AMERICA: Argentina [Corrientes, Misiones], Paraguay"
	Krapovickas, A., Gregory, W. C., Williams, D. E., & Simpson, C. E. (2007). Taxonomy of the genus <i>Arachis</i> (Leguminosae). <i>Bonplandia</i> , 16, 7-205	[<i>Arachis glabrata</i> Benth. var. <i>glabrata</i>] "Geographic distribution. The range of this species, which is very polymorphic, has its southern limit in the north of Corrientes and the south of Misiones, in Argentina. It apparently does not cross the Paraguay River and is very common in eastern Paraguay where, for example, it forms part of the lawns of the plazas in the center of Asuncion. Towards the north, it extends through the states of Mato Grosso do Sul and Mato Gr-osso, along the edges of the Mato Grosso Pantanal. Its northern limit is found at Rosario Oeste, some 70 km north of Cuiaba. Towards the east, its range extends through southeastern Goiás and the Mining Triangle to the state of Sao Paulo, where its eastern limit is found at Emas, near Pirassununga. In Brazil, it grows in the "cerrado," and in Paraguay and Argentina in open field formations."

202	Quality of climate match data	High
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Qsn #	Question	Answer
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2024). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch . [Accessed 12 Jan 2024]	"Native Southern America BRAZIL: Brazil [Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, São Paulo] SOUTHERN SOUTH AMERICA: Argentina [Corrientes, Misiones], Paraguay"

203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	Heuzé V., Tran G., Edouard N., & Lebas F. (2019). Rhizoma peanut (<i>Arachis glabrata</i>). Feedipedia, a programme by INRAE, CIRAD, AFZ and FAO. https://www.feedipedia.org/node/575 . [Accessed 12 Jan 2024]	" <i>Arachis glabrata</i> is native to South America (Brazil, Argentina and Paraguay) between 13° S and 28° S. It has been introduced to Australia, the United States, India, Thailand, Malaysia and Indonesia. Rhizoma peanut is a lowland species that can be found from 32°N to 35°S. It does well where annual rainfall is between 1000 and 2000 mm and where average monthly temperature is over 20°C. Rhizoma peanut can survive drought and grow where moisture is only 600 mm (evenly distributed) or 750 mm (over a 5-month wet season). <i>Arachis glabrata</i> can bear short periods of flooding or waterlogging (up to 4000 mm/year) and short periods of frost down to -12°C: the leaves die but the plant recovers from the rhizomes."
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Natural distribution extends from 13° S to 28° S, mostly at fairly low altitudes. In cultivation, it has grown successfully from near the equator to about 30° N and S, representing a range in average annual temperature of about 20–26 °C. While it grows best when mean monthly temperatures are above about 20 °C, it has survived at 32° N in the USA with average annual temperature of 18 °C, and where "freeze" temperatures may fall to -12 °C. Heavy frosts kill top growth, but plants recover from rhizomes."

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2024). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch . [Accessed 12 Jan 2024]	"Native Southern America BRAZIL: Brazil [Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, São Paulo] SOUTHERN SOUTH AMERICA: Argentina [Corrientes, Misiones], Paraguay"
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2024). Plants of Hawai'i. http://www.plantsofhawaii.org . [Accessed 12 Jan 2024]	"Only found in cultivation" [No evidence to date]

205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes
	Heuzé V., Tran G., Edouard N., & Lebas F. (2019). Rhizoma peanut (<i>Arachis glabrata</i>). Feedipedia, a programme by INRAE, CIRAD, AFZ and FAO. https://www.feedipedia.org/node/575 . [Accessed 11 Jan 2024]	" <i>Arachis glabrata</i> is native to South America (Brazil, Argentina and Paraguay) between 13° S and 28° S. It has been introduced to Australia, the United States, India, Thailand, Malaysia and Indonesia."

Qsn #	Question	Answer
	USDA, Agricultural Research Service, National Plant Germplasm System. (2024). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch . [Accessed 11 Jan 2024]	"Cultivated Asia-Tropical INDIAN SUBCONTINENT: India INDO-CHINA: Thailand MALESIA: Indonesia, Malaysia Australasia AUSTRALIA: Australia Northern America REGION: United States Southern America CARIBBEAN: Cuba"
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Cutlivated: Northern America: USA (Florida, Georgia)"

301	Naturalized beyond native range	y
	Source(s)	Notes
	Weakley, A.S., and Southeastern Flora Team. (2024). Flora of the southeastern United States Web App. University of North Carolina Herbarium, North Carolina Botanical Garden, Chapel Hill, U.S.A. https://fsus.ncbg.unc.edu/show-taxon-detail.php?taxonid=2711 . [Accessed 11 Jan 2024]	** <i>Arachis glabrata</i> Benth. Grassnut. Phen: Jul-Oct. Hab: Disturbed areas. Dist: Native of South America, planted on roadsides and spreading. Anderson (2007) states that this is "naturalized and spreading"; the species is also reported for Charlton County, GA (Carter, Baker, & Morris 2009), Baldwin County, AL (Keener, 2012; Barger et al. 2012), and Orleans Parish LA (Allen 2015)."
	Keener, B. R. (2012). Three non-native vascular plant species new to Alabama. <i>Phytoneuron</i> , 73, 1-3	"ARACHIS GLABRATA Benth. (Fabaceae) – is a native of southern Brazil, Paraguay, and extreme northeastern Argentina (Krapovikas & Gregory 2007). It has been introduced into the USA, particularly Florida, where it has been used as a forage plant (Krapovikas & Gregory 2007). Since its introduction into Florida, it has been documented as naturalized at several localities along roadsides and adjacent fields (Isely 1998). In fairly recent time, there has been a bit of taxonomic discrepancy regarding the naturalized material of <i>Arachis</i> in Florida. This may be partly due to Wunderlin and Hansen (2003), who treated the naturalized material as <i>A. prostrata</i> , noting that <i>A. glabrata</i> had been previously "misapplied". However, in a more recent revision of their publication, Wunderlin and Hansen (2011) have changed the taxon to <i>Arachis glabrata</i> , which also matches their treatment for the species found in the Atlas of Florida Vascular Plants (2012). This also seems to be congruent with the generic monograph work of Krapovikas and Gregory (2007). However, the USDA PLANTS database (USDA, NRCS 2012) maintains that <i>A. prostrata</i> is the commonly escaped <i>Arachis</i> in Florida, while <i>A. glabrata</i> is "excluded" from the USA flora. The population vouchered below was found along a rural roadside and adjacent moist roadside ditch. It was growing with <i>Xyris</i> sp. and several species of <i>Carex</i> and <i>Rhynchospora</i> . It was also observed in a nearby field, where an interview with the landowner revealed that he had planted "Perennial Peanut" in his field "years ago" and that it is surviving without aid other than grazing. The vouchered plants were collected some distance away from his field, well away from the cultivated area. From this it was clear that the species is spreading from cultivation. Voucher specimens: Alabama. Baldwin Co.: 6.1 air mi. SW of Seminole, along Co. Rd. 91 (Gardner Rd.) ca. 0.4 mi. W of Le Frank Rd., 30.46570°, -87.50154°, 3 Jul 2011, Keener 6596 (UWAL, duplicates TROY, VDB)."
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2024). Plants of Hawai'i. http://www.plantsofhawaii.org . [Accessed 11 Jan 2024]	"Only found in cultivation" [Not collected as naturalized in the Hawaiian Islands to date]

Qsn #	Question	Answer
	Keener, B.R. et al. (2024). Alabama Plant Atlas. [S.M. Landry and K.N. Campbell (original application development), Florida Center for Community Design and Research. University of South Florida]. University of West Alabama, Livingston, Alabama. http://atlas.uwa.edu/ . [Accessed]	"This species is grown in southern parts of Alabama and Georgia and throughout Florida for forage. It was first reported as naturalized in Alabama in 2012 (Keener). Perennial Peanut is an introduced member of the Bean family (Fabaceae). It is native to Brazil, Argentina, and Paraguay. It has been widely planted in tropical and subtropical regions as a forage plant and for erosion control. It has also been used as a low growing ground cover. It has been reported as an escape in Alabama, Georgia, and Florida. Perennial Peanut was first collected as an escape in Alabama in 2011 in Baldwin County. Since that time it has been collected in two additional counties. Perennial Peanut is a mat forming rhizomatous perennial with a deep woody taproot. Stems are decumbent and radiate out from the crown. Stems are green in color and hollow or pithy. Leaves are alternate, petiolate, tetra-foliolate, and glabrous or sparsely pubescent. Leaflets are linear to obovate in outline. Flowers are solitary, axillary, and long petiolate. Flowers are papilionaceous, and orange-yellow in color. The fruit is a 1 or 2 seeded legume. If pollinated, the flower bends towards the soil and the young fruit is pushed into the soil where it develops. Fruit set is rare in our plants. Perennial Peanut is available from some nurseries. It does not survive well north of the Montgomery area.--A. Diamond"

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Weed potential Nil."
	University of Florida, IFAS. (2024). Assessment of Non-Native Plants in Florida's Natural Areas. https://assessment.ifas.ufl.edu/ . [Accessed 12 Jan 2024]	[<i>Arachis glabrata</i>] "Not considered a problem species at this time. May be recommended by IFAS. Reassessed every 10 years."

303	Agricultural/forestry/horticultural weed	
	Source(s)	Notes
	Guglieri-Caporal, A., Caporal, F. J. M., & Pott, A. (2010). Phytosociology of sown pasture weeds under two levels of degradation in Brazilian savanna areas, Mato Grosso do Sul State, Brazil. <i>Pesquisa Agropecuária Tropical</i> , 40(3), 312-321	"Table 1. Weed species of two areas of <i>Brachiaria</i> spp. pastures in Cerrado, Nova Esperança ranch, Sidrolândia, Mato Grosso do Sul." [<i>Arachis glabrata</i> is listed as a weed, but no negative impacts are described. It is also listed as having forage potential, suggesting it would be an asset to pasture grazing]

Qsn #	Question	Answer
304	Environmental weed	n
	Source(s)	Notes
	Department of Primary Industries and Regional Development's Agriculture and Food. (2024). Environmental weed risk assessments. https://www.agric.wa.gov.au/rangelands/environmental-weed-risk-assessments . [Accessed 12 Jan 2024]	"Table 2 Environmental weed risk ratings for species for three regions within the pastoral zone of WA assessed using the 'Environmental weed risk assessment protocol for growing non-indigenous plants in the Western Australian rangelands' (Moore et al. 2022) which is based on the FFI CRC Methodology. Species native to WA have not been included." [Arachis glabrata risk rated "Negligible to low" in the Gascoyne-Goldfields, Pilbara & Kimberley regions]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2024). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi . [Accessed 12 Jan 2024]	No evidence

305	Congeneric weed	
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	[Possibly. Impacts unspecified] Arachis archeri - Weed of: Pastures; Arachis spp. - Weed of: Cereals
	CABI. (2024). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi . [Accessed 12 Jan 2024]	No evidence

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Krapovickas, A., Gregory, W. C., Williams, D. E., & Simpson, C. E. (2007). Taxonomy of the genus Arachis (Leguminosae). <i>Bonplandia</i> , 16, 7-205	[No evidence] "Perennial, rhizomatous plant with robust taproot. Rhizomes at a depth of 5-20 cm, ramified, rooting, very extended; in year-old plants the rhizomes originate on the basal nodes of the cotyledonary branches. Aerial stems to 40 cm long, decumbent, scandent, pubescent to glabrous. Leaves tetrafoliolate. Stipules subulate, villous to glabrescent, sometimes with some bristles. Leaflets oblong, elliptical or obovate, with the margin somewhat marked on the underside. Upper leaf surface usually glabrous, but younger leaves may exhibit some very short, scattered hairs. Lower leaf surface with adpressed hairs to subglabrous, and frequently with hairs somewhat longer on the midvein. Spikes pauciflorous, very short, axillary. Hypanthium well developed, villous. Calyx villous and with abundant bristles. Standard orange, rarely yellow, with red lines on the upper surface. Fruit subterranean, biarticulate; peg 5-10 cm long, with short isthmus; pericarp smooth."

402	Allelopathic	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Compatibility (with other species) - Combines well with other low-growing species, including aggressive creeping grasses that usually suppress companion legumes. Can be shaded out by taller grasses."

Qsn #	Question	Answer
403	Parasitic	n
	Source(s)	Notes
	Krapovickas, A., Gregory, W. C., Williams, D. E., & Simpson, C. E. (2007). Taxonomy of the genus <i>Arachis</i> (Leguminosae). <i>Bonplandia</i> , 16, 7-205	"Perennial, rhizomatous plant with robust taproot." [No evidence]

404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Krapovickas, A., Gregory, W. C., Williams, D. E., & Simpson, C. E. (2007). Taxonomy of the genus <i>Arachis</i> (Leguminosae). <i>Bonplandia</i> , 16, 7-205	"It is a good natural forage, much desired by_ livestock, for which reason it is always found heavily grazed and therefore difficult to identify."
	Cook, B.G. et al. (2020). <i>Tropical Forages: An interactive selection tool</i> . 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Readily eaten by dairy and beef cattle, horses, dairy and meat goats, sheep, swine, rabbits, poultry and ostrich, as hay, silage and pasture. The hay is at least as palatable as <i>Medicago sativa</i> hay. The leaf meal compares favourably with yellow maize and alfalfa meal as a xanthophyll pigment source for egg yolk colouring in laying hens."
	Heuzé V., Tran G., Edouard N., & Lebas F. (2019). <i>Rhizoma peanut (Arachis glabrata)</i> . Feedipedia, a programme by INRAE, CIRAD, AFZ and FAO. https://www.feedipedia.org/node/575 . [Accessed 11 Jan 2024]	"Rhizoma peanut is mainly used as a forage legume that can be intensively grazed, or cut for hay or silage. It is particularly suited to infertile acidic soils (FAO, 2016). It can be grown in agroforestry systems and in mixed stands with tropical grasses or cool or warm grains (Cook et al., 2005). A good cover crop it is useful for erosion control in row crops and groves and for soil stabilization along roadsides. It is planted as an ornamental in private gardens, parks and highways (USDA-NRCS, 1997)."

405	Toxic to animals	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). <i>Tropical Forages: An interactive selection tool</i> . 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Toxicity None recorded."

Qsn #	Question	Answer
406	Host for recognized pests and pathogens	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Pests and diseases - <i>A. glabrata</i> is rarely troubled by insects or disease and is immune to common groundnut leaf-spots caused by <i>Cercospora arachidicola</i> (<i>Mycosphaerella arachidis</i>) and <i>Cercosporidium personatum</i> = <i>Phaeoisariopsis personata</i> (<i>Mycosphaerella berkeleyi</i>). Generally immune to groundnut rust caused by <i>Puccinia arachidis</i> , although strains of the organism exist that can cause severe damage. Susceptible to, but suffering no long-term damage from, leaf-spot diseases caused by <i>Phyllosticta</i> , <i>Leptosphaerulina</i> and <i>Stemphylium</i> . White mould caused by <i>Sclerotium rolfsii</i> , and rhizome rots caused by <i>Rhizoctonia</i> , <i>Pythium</i> and <i>Fusarium</i> cause temporary damage when conditions favour spread of the organism, but stands recover. Cotton root rot caused by <i>Phymatotrichopsis omnivora</i> (= <i>Phymatotrichum omnivorum</i>) has also caused damage. Peanut stunt virus (Clemson isolate, Cucumovirus), symptoms of which include stunted plants, chlorosis, malformed leaves, and reduced foliage yield, has been isolated from <i>A. glabrata</i> . Tolerant of or resistant to the various root-knot nematodes (<i>Meloidogyne</i> spp). <i>A. glabrata</i> was thought to be resistant to the peanut mottle virus, but the disease has now been identified in young plants of PI 243334 and a line identified as A176 displaying chlorotic ringspots in Georgia, USA. Insect damage is of little consequence."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Toxicity - None recorded."
	Quattrocchi, U. (2012). CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	't Mannelje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	[Low growth. Unlikely to contribute to fire risk] "Herbaceous perennial with erect to decumbent unbranched, hollow aboveground stems 5-35 cm long, 2-3 mm thick, arising from a mat of rhizomes which range in thickness from 3-5(-10) mm. Rhizomes which form a dense mat in the top 5 cm of soil arise from the deep, woody taproot; roots covered with a multitude of small, oblate nodules."
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	[No evidence] "Fire - As with death of tops from frost and drought, plants readily recover from rhizomes following fire."

Qsn #	Question	Answer
409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	[Some ecotypes exhibit some shade tolerance] "Shade tolerance varies with ecotype, e.g. CPI 12121 rated highly shade tolerant and CPI 29986 as having low shade tolerance. Generally can grow in moderate shade, but less shade-tolerant than <i>A. pintoi</i> ." ... "Can be shaded out by taller grasses."
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Grows successfully on well-drained soils ranging from sands to clays. Prefers acid soils growing well down to pH 4.5, but tolerates neutral to slightly alkaline soils, some ecotypes growing moderately well at pH as high as 8.5. Grows well on infertile or fertile soils, but may suffer from excessive grass competition on the latter. Appears to be less P-demanding than <i>A. pintoi</i> ."
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"It grows successfully on soils with textures ranging from sands to clays provided they are well-drained. While apparently preferring acid soils, it has produced good yields on neutral to slightly alkaline soils. It grows well on soils low in P."
411	Climbing or smothering growth habit	
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	[May competitively exclude weeds once established, but needs to be weeded to allow for establishment] "Weeds should be controlled during establishment." ... "Rhizomes which form a dense mat in the top 5 cm of soil arise from the deep, woody taproot; roots covered with a multitude of small, oblate nodules." ... "Unlike many tropical legumes, <i>A. glabrata</i> can compete successfully with sward-forming grasses such as bahia grass (<i>Paspalum notatum</i> Fluegge), narrow leaf carpet grass (<i>Axonopus affinis</i> A. Chase), pangola grass (<i>Digitaria eriantha</i> Steudel) and bermuda grass (<i>Cynodon dactylon</i> (L.) Pers.)."
412	Forms dense thickets	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	[Mat-forming] "Herbaceous perennial with erect to decumbent unbranched, hollow above-ground stems 5-35 cm long, 2-3 mm thick, arising from a mat of rhizomes which range in thickness from 3-5(-10) mm. Rhizomes which form a dense mat in the top 5 cm of soil arise from the deep, woody taproot; roots covered with a multitude of small, oblate nodules."
501	Aquatic	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	[Terrestrial] "Although <i>A. glabrata</i> is primarily used as a high quality forage legume for intensively grazed pastures on infertile, acid soils, it also has potential for soil conservation and as an ornamental."
502	Grass	n

Qsn #	Question	Answer
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2024). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch . [Accessed 12 Jan 2024]	"Native Southern America BRAZIL: Brazil [Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, São Paulo] SOUTHERN SOUTH AMERICA: Argentina [Corrientes, Misiones], Paraguay"
503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	Giller, K. E. 2001. Nitrogen Fixation in Tropical Cropping Systems. CABI Publishing, Wallingford, UK	A nitrogen-fixing, herbaceous perennial
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"Rhizomes which form a dense mat in the top 5 cm of soil arise from the deep, woody taproot; roots covered with a multitude of small, oblate nodules."
601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	Venuto, B. C., Elkins, W. M., Hintz, R. W., & Reed, R. L. (1997). Seed production, germination, and vigor in Rhizoma perennial peanut (<i>Arachis glabrata</i>). <i>Seed Science and Technology</i> , 25(3), 471-478	"... Simpson, Valls and Miles reported that members of this section are poor seeders and most <i>A. glabrata</i> accessions produce few, if any seeds in native or adapted habitats." [Despite low seed set, propagation and reproduction do not appear to be limited]
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"Because seed set is rare, <i>A. glabrata</i> is usually propagated from rhizomes."
602	Produces viable seed	y
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Appears to flower in response to shortening days, particularly when released from a stress, e.g. wetting of soil following a dry period. Despite often-dense flowering, few seeds are formed. Seed set is more common during the establishment phase before sward closure or in rhizome production fields the year after digging."
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"Because seed set is rare, <i>A. glabrata</i> is usually propagated from rhizomes. With adequate temperature and moisture, shoots usually emerge 2-3 weeks after planting; dense swards develop as rhizomes form and extend the margins of the stand at up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition. Accessions differ in rate of spread. Despite often dense flowering, few seeds are set, except in some accessions prior to dense sward development. Seedlings are usually quite large before they form rhizomes."
603	Hybridizes naturally	y

Qsn #	Question	Answer
	Source(s)	Notes
	Krapovickas, A., Gregory, W. C., Williams, D. E., & Simpson, C. E. (2007). Taxonomy of the genus <i>Arachis</i> (Leguminosae). <i>Bonplandia</i> , 16, 7-205	"Hybrids were obtained between <i>A. pseudovillosa</i> and <i>A. glabrata</i> var. <i>glabrata</i> in two cases, but without data on the fertility of pollen."

604	Self-compatible or apomictic	
	Source(s)	Notes
	Stalker, H. T., Tallury, S. P., Seijo, G. R., & Leal-Bertioli, S. C. (2016). Biology, speciation, and utilization of peanut species. In <i>Peanuts</i> (pp. 27-66). AOCs Press	[Possibly. <i>Arachis hypogaea</i> is self-pollinating] "Peanut is self-pollinating and thus the flowers are perfect/hermaphroditic containing both male and female reproductive parts."

605	Requires specialist pollinators	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). <i>Plant Resources of South-East Asia. No. 4. Forages</i> . Pudoc Scientific Publishers, Wageningen, Netherlands	"Flowers sessile, axillary; hypanthium filiform, tubular, up to 10 cm long, pilose, containing the ovary at its base; standard more or less orbicular, 15-25 mm wide, yellow, soft orange to brilliant orange without red veins on back."
	Simpson, C. E., Valls, J. F. M., & Miles, J. W. (1993). Reproductive biology and the potential for genetic recombination of <i>Arachis</i> . Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia	"The <i>Arachis</i> genus, which probably antedates the Amazonian forest, has evolved into some diverse ecological niches, including semi-arid areas, lowland swamps, and many environments in between. Its floral biology shows a papilionaceous flower that is generally self-pollinated. But it may be cross-pollinated by various species of bees."

606	Reproduction by vegetative fragmentation	y
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). <i>Plant Resources of South-East Asia. No. 4. Forages</i> . Pudoc Scientific Publishers, Wageningen, Netherlands	"Because seed set is rare, <i>A. glabrata</i> is usually propagated from rhizomes."
	Cook, B.G. et al. (2020). <i>Tropical Forages: An interactive selection tool</i> . 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

607	Minimum generative time (years)	1
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). <i>Plant Resources of South-East Asia. No. 4. Forages</i> . Pudoc Scientific Publishers, Wageningen, Netherlands	[Presumably reproduces in first growing season, as do congeners] "With adequate temperature and moisture, shoots usually emerge 2-3 weeks after planting; dense swards develop as rhizomes form and extend the margins of the stand at up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition. Accessions differ in rate of spread. Despite often dense flowering, few seeds are set, except in some accessions prior to dense sward development. Seedlings are usually quite large before they form rhizomes."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	Notes

Qsn #	Question	Answer
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"A. glabrata and its near relatives are native to Brazil, Argentina and Paraguay in a large triangular area between 13 °Sand 28 °S. Over the last 50 years, various sets of the group have been sent to Australia and the United States, and more recently to India, Thailand, Malaysia and Indonesia."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"Fruit set geocarpic, but usually scarce; fruit ovoid ca. 10 mm x 5-6 mm. Seeds ovoid, whitish. Growth and development Because seed set is rare, A. glabrata is usually propagated from rhizomes."
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

705	Propagules water dispersed	
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	[Possibly] "Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

Qsn #	Question	Answer
706	Propagules bird dispersed	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	[No evidence. Rhizome fragments could possibly be spread by animals, but evidence has not been found] "Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

708	Propagules survive passage through the gut	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"Because seed set is rare, <i>A. glabrata</i> is usually propagated from rhizomes."
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Plants can only spread by rhizome extension, although, in principle, spread by water-eroded seed or rhizome is possible. Rhizomes can spread up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition."

801	Prolific seed production (>1000/m2)	n
	Source(s)	Notes
	't Mannetje, L. & Jones, R.M. (Eds.). (1992). Plant Resources of South-East Asia. No. 4. Forages. Pudoc Scientific Publishers, Wageningen, Netherlands	"Because seed set is rare, <i>A. glabrata</i> is usually propagated from rhizomes. With adequate temperature and moisture, shoots usually emerge 2-3 weeks after planting; dense swards develop as rhizomes form and extend the margins of the stand at up to 2 m per year in the absence of competition, or 5-30 cm per year with grass competition. Accessions differ in rate of spread. Despite often dense flowering, few seeds are set, except in some accessions prior to dense sward development. Seedlings are usually quite large before they form rhizomes."
	Venuto, B. C., Elkins, W. M., Hintz, R. W., & Reed, R. L. (1997). Seed production, germination, and vigor in Rhizoma perennial peanut (<i>Arachis glabrata</i>). Seed Science and Technology, 25(3), 471-478	"The perennial species of <i>Arachis</i> , <i>A. glabrata</i> section <i>Rhizomatosae</i> , produce much less seed than the annual species. Seed that is produced does not germinate well and the resultant seedlings often lack vigor and fail to survive. "

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes

Qsn #	Question	Answer
	Stalker, H. T., Tallury, S. P., Seijo, G. R., & Leal-Bertioli, S. C. (2016). Biology, speciation, and utilization of peanut species. In Peanuts (pp. 27-66). AOCS Press	"Seeds of most wild species accessions can be maintained in a -20 °C freezer for 10 or more years, while others lose viability more rapidly. Under short-day conditions many species produce very few to no flowers, but most of these flowers self-pollinate and set pegs (Stalker and Wynne, 1983); under long days many of the same accessions will produce large numbers of flowers, but produce few pegs and seeds. Seeds of <i>A. tuberosa</i> and <i>A. guaranítica</i> enter a permanent dormancy upon drying, which prevents long-term seed storage (Stalker and Simpson, 1995)."

803	Well controlled by herbicides	y
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Herbicide effects - Tolerant of pre-emergence herbicides, trifluralin and vernolate, and post-emergence herbicides, alachlor, dinoseb, bentazon, 2,4-D, 2,4-DB, sethoxydim and fluzafopbutyl. Susceptible to metsulfuron methyl and glufosinate."

804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes
	Cook, B.G. et al. (2020). Tropical Forages: An interactive selection tool. 2nd and Revised Edn. International Center for Tropical Agriculture (CIAT), Cali, Colombia and International Livestock Research Institute (ILRI), Nairobi, Kenya. www.tropicalforages.info	"Defoliation - <i>A. glabrata</i> is very tolerant of heavy grazing, requiring moderate to heavy grazing pressures for best performance. For hay production, 3 cuts/yr on an 8-week cycle or 2 cuts/yr on a 12-week cycle give best results. For grazing, best regrowth is obtained with 2,300 kg/ha DM residual (20 cm stubble height) on a 3-week cycle, or 1,500 kg/ha DM residual (15 cm stubble height) on a 6-week cycle. Fire - As with death of tops from frost and drought, plants readily recover from rhizomes following fire."

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. (2024). Personal Communication	Unknown

Summary of Risk Traits:

Arachis glabrata, commonly known as perennial peanut, is a low-growing, warm-season legume native to South America and is often used as a forage crop. Key features include its creeping growth habit, tetrafoliate leaves, and orange flowers. It is a perennial plant, meaning it can survive for multiple years, and it forms a dense ground cover. Due to its nitrogen-fixing capabilities, perennial peanut can enhance soil fertility. In addition to its use as forage for livestock, perennial peanut is also utilized in landscaping and erosion control. It has been introduced in various regions as a sustainable alternative to traditional turf grasses, as it requires less water and fertilizer. Although it has become naturalized in some locations, it is not reported to have detrimental impacts where introduced.

High Risk / Undesirable Traits

- Broad climate suitability
- Thrives and spreads in regions with tropical climates
- Naturalized in the southeaster United States, but not reported as naturalized in the Hawaiian Islands to date.
- Reported as a pasture weed, but no negative impacts have been documented.
- Tolerates many soil types
- May form ground cover that may suppress or compete with other vegetation
- Reproduces by seeds and vegetatively by rhizomes, but seed set is low.
- Hybridizes with other *Arachis* species.
- May reach maturity in one growing season
- Seeds and rhizomes might be dispersed by water, and through intentional cultivation.
- Tolerates and resprouts after grazing and fire.

Low Risk Traits

- No documented reports of negative impacts where cultivated.
- Unarmed (no spines, thorns, or burrs)
- Highly palatable
- Non-toxic
- Limited seed set may reduce the risk of long distance or accidental dispersal.
- Herbicides may provide effective control

Second Screening Results for Herbs or Low Stature Shrubby Life Forms

(A) Reported as a weed of cultivated lands? Not confirmed

(B) Unpalatable to grazers or known to form dense stands? No. Palatable, mat-forming rhizomatous herb.

Outcome = Accept (Low Risk)

