Key Words: Low Risk, Neotropical, Unarmed, Timber Tree, N-Fixing, Wind-dispersed

Family: ***Fabaceae***

Taxon: ***Peltogyne purpurea***

Synonym: *NA*

Common Name: purpleheart
nazareno
morado

Questionaire : current 20090513 **Assessor:** Chuck Chimera **Designation:** L
Status: Assessor Approved **Data Entry Person:** Chuck Chimera **WRA Score -2**

101	**Is the species highly domesticated?**	**y=-3, n=0**	**n**
102	**Has the species become naturalized where grown?**	**y=1, n=-1**	
103	**Does the species have weedy races?**	**y=1, n=-1**	
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**	**n**
302	**Garden/amenity/disturbance weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**n**
303	**Agricultural/forestry/horticultural weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**n**
304	**Environmental weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**n**
305	**Congeneric weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**n**
401	**Produces spines, thorns or burrs**	**y=1, n=0**	**n**
402	**Allelopathic**	**y=1, n=0**	
403	**Parasitic**	**y=1, n=0**	**n**
404	**Unpalatable to grazing animals**	**y=1, n=-1**	
405	**Toxic to animals**	**y=1, n=0**	
406	**Host for recognized pests and pathogens**	**y=1, n=0**	
407	**Causes allergies or is otherwise toxic to humans**	**y=1, n=0**	
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**	**n**
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**	**y**
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**	
604	**Self-compatible or apomictic**	**y=1, n=-1**	
605	**Requires specialist pollinators**	**y=-1, n=0**	**n**
606	**Reproduction by vegetative fragmentation**	**y=1, n=-1**	**n**
607	**Minimum generative time (years)**	**1 year = 1, 2 or 3 years = 0, 4+ years = -1**	**>3**
701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	**y=1, n=-1**	
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**	**y**
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**	**n**
708	**Propagules survive passage through the gut**	**y=1, n=-1**	
801	**Prolific seed production (>1000/m2)**	**y=1, n=-1**	
802	**Evidence that a persistent propagule bank is formed (>1 yr)**	**y=1, n=-1**	**n**
803	**Well controlled by herbicides**	**y=-1, n=1**	
804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y=1, n=-1**	
805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	**y=-1, n=1**	

Designation: L **WRA Score** -2

Supporting Data:

101	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Is the species highly domesticated? No evidence]
102	2012. WRA Specialist. Personal Communication.	NA
103	2012. WRA Specialist. Personal Communication.	NA
201	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Species suited to tropical or subtropical climate(s) 2-High] "Primarily a South American genus centered in northern Brazil. A single species is known from Panama." … "Southern Darien, Panama; Costa Rica?"
202	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Quality of climate match data 2-High]
203	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Broad climate suitability (environmental versatility)? No] "Found in very humid climates, the tree grows best in the hills or in areas with good soil drainage at elevations from 50 to 500 m. The tree grows in climates with an annual rainfall of 3500 to 5000 mm and average temperatures of 23 to 27 °C."
203	2012. Tropicos.org. Tropicos [Online Database]. Missouri Botanical Garden, http://www.tropicos.org/	[Broad climate suitability (environmental versatility)? No] Collected from 0 - 540 m within native range.
204	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Primarily a South American genus centered in northern Brazil. A single species is known from Panama." … "Southern Darien, Panama; Costa Rica?"
204	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Native or naturalized in regions with tropical or subtropical climates? Yes] "P. purpurea Pittier (Caesalpinaceae) is a Neotropical timber tree, endemic to Costa Rica and Panama. In Costa Rica, P. purpurea is mainly found in the south pacific coast between Carara National Park and the Osa Peninsula, the latter being the location with the highest density of this species (Jime´nez, 1993). This species grows in well-drained hills and slopes with steepness between 40 and 80%. Flowering occurs between August and December, and fruiting is restricted to the driest months of the year (Quesada et al., 1997)."
205	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Does the species have a history of repeated introductions outside its natural range? No evidence] "Peltogyne purpurea, one of the most valuable timber trees in southern Costa Rica, is not artificially regenerated. Because timber is harvested only in primary forests, information about nursery practices and seedling care is nonexistent (Nichols and González 1991a, 1991b)."
205	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Does the species have a history of repeated introductions outside its natural range? No evidence]
301	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Naturalized beyond native range? No evidence]
302	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Garden/amenity/disturbance weed? No evidence]
303	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Agricultural/forestry/horticultural weed? No evidence]
305	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Congeneric weed? No evidence]
401	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Produces spines, thorns or burrs? No] "Unarmed trees, the branchlets terete"
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Parasitic? No] "A tall forest tree with slender, glabrous branchlets and hard wood, usually found in localities with a dry season."
404	2012. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown]
405	2012. WRA Specialist. Personal Communication.	[Toxic to animals? Unknown]

406	2007. Nair, K.S.S.. Tropical Forest Insect Pests: Ecology, Impact, and Management. Cambridge University Press, Cambridge, UK	[Host for recognized pests and pathogens? Unknown for P. purpurea. Related species subject to outbreak of lepidopterans in native range] "Outbreak of a related species, E. phrygionia, has been reported on the monodominant rain forest of Peltogyne gracilipes (Caesalpiniaceae) in Maraca Island, Brazil (Nascimento and Proctor, 1994). This species also feeds on tender leaves and virtually all trees with tender leaves suffered heavy defoliation during outbreaks, which occurred during early flushing season. The Peltogyne forest forms strips, each up to several hundred hectares in area, on Maraca Island, where the outbreak was observed. The level of damage was lower in stands where the host trees were less dense. Two waves of outbreaks occurred in the first year of observation, but none in the following year."
407	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Causes allergies or is otherwise toxic to humans? No evidence] "The wood is heavy (specific gravity is 0.83), difficult to dry, with a moderate twisting and some fissures, and difficult to work and preserve. However, it has a high durability. When dry, the sapwood is gray-yellow-brown, and the heartwood is a brilliant purple when exposed to light (Carpio 1992). The grains are intercrossed; texture is medium to fine; and dark-color strips alternate on radian surfaces. The wood is used for agricultural tools, boats, general carpentry, interior and exterior construction, railway foundations, furniture, cabinetwork, paneling, inlays, flooring, dock fenders, veneer, and ornamental plates (Allen 1956, Carpio 1992). Some of the doors in the National Museum of Costa Rica are made of this fine wood."
407	2012. Carbide Processors. Wood Allergens. http://www.carbideprocessors.com/pages/woodworking/wood-allergens.html	[Causes allergies or is otherwise toxic to humans? Dust of related species, Peltogyne densiflora, has allergenic properties] "Here are 373 woods known to cause health problems. Exposure to any wood dust can cause health problems. Whether they affect someone and how badly the problems are depends on the amount of exposure and the body chemistry of the individual. Many of these are sensitizers and the health problems may not show up until a certain amount of exposure. Many of these have different common names and the scientific descriptions are somewhat imprecise especially at the retail level." [Peltogyne densiflora - Dust, wood - nasal irritant, nausea.]
408	1978. Croat, T.B.. Flora of Barro Colorado Island. Stanford University Press, Stanford, CA	[Creates a fire hazard in natural ecosystems? No evidence] "Costa Rica and Panama. In Panama, known from tropical moist forest in the Canal Zone and reported to be common in Darien in tropical moist and tropical wet forests (Duke, 1968; Allen, unpubl.; Lamb, 1953). Tosi (1971) listed the species as characteristic of premontane wet forest in Panama. Holdridge (1970) reported it from tropical moist and tropical wet forests on well-drained soils." [Occurs in wet forests unlikely to experience frequent fires]
408	2010. Condit, R./Pérez, R./Daguerre, N.. Trees of Panama and Costa Rica. Princeton University Press, Princeton, NJ	[Creates a fire hazard in natural ecosystems? No evidence] "A tall tree of wet areas."
409	2003. Boshier, D./Cordero, J.. Árboles de Centroamérica. OFI/CATIE, Oxford/Turrialba	[Is a shade tolerant plant at some stage of its life cycle? No] "La regeneración cerca del árbol madre es abundante, pero desafortunadamente la mayoría de los brinzales bajo sombra mueren pocos años después. Las plántulas que nacen en áreas abiertas o en el borde del bosque se desarrollan muy bien." [Translation from Spanish: Regeneration near the parent tree is abundant, but unfortunately most of the seedlings under shade die within a few years later. Seedlings born in open areas or on the edge of the forest develop very well."
409	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Is a shade tolerant plant at some stage of its life cycle? Possibly, but see Boshier & Cordero 2003] "Growth rates of P. purpurea are within the range observed for slow growing, shade-tolerant tropical trees in diameter classes >50 cm dbh (Clark and Clark, 1992)."
410	2003. Boshier, D./Cordero, J.. Árboles de Centroamérica. OFI/CATIE, Oxford/Turrialba	[Tolerates a wide range of soil conditions? No] "Por lo general se le encuentra en suelos pobres, rojizos y arcillosos, con altos contenidos de hierro y aluminio, preferiblemente en colinas o sitios con buen drenaje." [Translation from Spanish: It is usually located on poor soils, reddish clay, with a high iron and aluminum content, preferably on hills or sites with good drainage.]
411	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Climbing or smothering growth habit? No] "A tall forest tree with slender, glabrous branchlets and hard wood, usually found in localities with a dry season. Leaves deciduous, glabrous, reported with caducous, membranaceous, acuminate stipules about 1 cm. long; petiole to 2 cm. long; leaflets 2, 5-7 cm. long and 2-3 cm. broad, markedly reticulate, subfalcate, inequilateral, acuminate, obliquely rounded or obtuse basally, short-petiolulate, the petiolules 3-4 mm. long."

412	1915. Pittier, H.. Some new caesalpiniaceous trees of Panama. Journal of the Washington Academy of Sciences. 5: 468-479.	[Forms dense thickets? No evidence] "Peltogyne purpurea, called nazareno or morado by the natives of Panama, is one of the most remarkable trees of the forest in the districts with a well defined dry period. It grows preferably on ridges free of higher. vegetation. The height of a full grown tree is seldom less than 25 meters and the trunk reaches up to 60 cm. in diameter. The tree is evidently deciduous, as only very young leaves, with the stipules still attached, were found near Yaviza."
412	1977. Allen, P.H.. The Rain Forests of Golfo Dulce. Stanford University Press, Stanford, CA	[Forms dense thickets? No evidence] "Fairly common in the rainy hills near Golfo Dulce and in the Esquinas Forest, but always on high, well-drained land."
412	2006. Rocha, O.J./Vílchez, B./Anchetta, A.L.A.. A mast fruiting episode of the tropical tree Peltogyne purpurea (Caesalpinaceae) in the Osa Peninsula, Costa Rica. Revista de Biología Tropical. 54(4): 1151-1155.	[Forms dense thickets? Not at this location] "P. purpurea (Pittier) (Caesalpinaceae) is an important timber species in Costa Rica. It is restricted to few forest patches in Southwestern Costa Rica and Northwestern Panama (Holdridge and Poveda 1975, Jiménez and Poveda 1991). P. purpurea is often a dominant species. In the region of Mogos in the Osa Peninsula of Costa Rica, the importance value index (IVI) of this species is second among all timber trees (Table 1). Because of its economic value, P. purpurea is being intensively harvested in the Osa Peninsula of Costa Rica, despite being considered a threatened species (Jiménez 1993)."
501	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Aquatic? No] "A tall forest tree with slender, glabrous branchlets and hard wood, usually found in localities with a dry season." [Terrestrial]
502	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] Fabaceae
503	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Nitrogen fixing woody plant? Yes] Fabaceae
504	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "A tall forest tree with slender, glabrous branchlets and hard wood, usually found in localities with a dry season. Leaves deciduous, glabrous, reported with caducous, membranaceous, acuminate stipules about 1 cm. long; petiole to 2 cm. long; leaflets 2, 5-7 cm. long and 2-3 cm. broad, markedly reticulate, subfalcate, inequilateral, acuminate, obliquely rounded or obtuse basally, short-petiolulate, the petiolules 3-4 mm. long."
601	2004. Vílchez, B./Rocha, O.. Fenología y biología reproductiva del nazareno (Peltogyne purpurea Pittier) en un bosque intervenido de la Península de Osa, Costa Rica, América Central. Kurú: Revista Forestal. 1(1): 1-14.	[Evidence of substantial reproductive failure in native habitat? No] "Phenology and reproductive biology of nazareno (Peltogyne purpurea Pittier) in a logged forest in the Osa Peninsula of Costa Rica – Central America. The phenology of the tropical rain forest tree Peltogyne purpurea was studied between March 1995 and December 1996 in Mogos, Osa Peninsula, Costa Rica. The study was carried out in a Very Humid Tropical Forest Transition to Basal which had been previously logged. Monthly observations were taken for five phenological events, namely, leave flushing, foliage, flowering, green and ripe fruits. Flushing began in February, after the first sporadic rains, although the highest intensity was observed toward the end of May and throughout June. Foliage remained present for all of the rainy season, and leaf senescence and shedding occurred during January and February; which are typically the driest months of the year. Flowering began in April, reaching its peak in June, and lasted until August. Unripe fruits were observed two to three months after anthesis, reaching their maximun during July and August. Green fruits were observed up until November. Ripe fruits were observed in November and December. Fruit maturation took between 3 and 5 months."
602	2006. Vílchez, B./Rocha, O.. Population structure of the tree Peltogyne purpurea (Cesalpinaceae) in an altered forest at Osa Peninsula, Costa Rica. Revista de Biología Tropical. 54(3): 1019-1029.	[Produces viable seed? Yes] "Abstract The regeneration of the rain forest tree Peltogyne purpururea Pittier after selective logging was studied in Mogos, Osa Peninsula, Costa Rica. The distribution of all adult trees of P. purpurea according to diameter at breath height (dbh) categories revealed that the distribution of the adult trees followed a bell shaped curve. The largest number of individuals was found in the 70 to 80 cm dbh category. We did not find any significant differences in the distribution of saplings around seed-producing trees. There were similar numbers of saplings in the four transects established around each reproductive tree following the four cardinal directions. Overall, the majority of the saplings were found in the first meters around each seed-producing tree. There was another peak in the number of saplings at the distance where the crown of the tree ended. Logging can negatively affect the regeneration of P. purpurea."

602	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Produces viable seed? Yes] "For P. purpurea, seedlings were more abundant in unlogged areas, but small and large juvenile abundance did not differ between selectively logged treatments. The density of P. purpurea adult trees remained constant 15 years after selective logging but the density of trees 10–30 cm dbh decreased in the same period."
602	2008. Lobo, J ./Aguilar, R./Chacon, E./Fuchs, E.. Phenology of tree species of the Osa Peninsula and Golfo Dulce region, Costa Rica. Stapfia. 88: 547-555.	[Produces viable seed? Yes] "For annual and sub-annual species average fruit developing time was 3.69 months (based on a 30-day month) with 1.89 months standard deviation. Tachigali versicolor and Guatteria amplifolia required the longest amount of time for fruit maturation (8 months), followed by Virola sebifera (7.5 months), and Peltogyne purpurea, Carapa guianensis and Xylopia sericophylla with 6.5 months each."
603	2012. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2012. WRA Specialist. Personal Communication.	[Self-compatible or apomictic? Unknown]
605	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Requires specialist pollinators? No] "Flowers small, whitish; calyx receptacular and disc-like basally, the lobes 4, imbricate in bud; petals 5, sessile, punctate, subequal; stamens 10, free, glabrous; ovary few- ovulate, short-stipitate the stipe adnate to the receptacular portion of the calyx; style slender, with a peltate-capitate stigma." [No evidence from floral morphology]
605	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Requires specialist pollinators? Possibly Bat-pollinated] "A high number of Bignoniaceae (Crescentia cujete L., Amphitecna sessilifolia), Capparidaceae (Capparis), Caryocaraceae (Anthodiscus chocoensis, Caryocar costaricense Donn. Sm.), Euphorbiaceae (Mabea), Fabaceae- Mimosoideae (Inga leiocalycina, Parkia pendula (Willd.) Benth. ex Walp., and Fabaceae-Caesalpinioideae (Peltogyne purpurea Pittier), are also pollinated by bats. Both bats and sphingid insects pollinate some species, such as Capparis pittieri."
606	1999. Jiménez, Q.. Species of Costa Rica - Peltogyne purpurea. National Biodiversity Institute, http://darnis.inbio.ac.cr/FMPro?-DB=UBIpub.fp3&-lay=WebAll&-Format=/ubi/detail.html&-Op=bw&id=2144&-Find	[Reproduction by vegetative fragmentation? No evidence] "La especie se reproduce por semilla." [Translation from Spanish: The species reproduces by seed.]
607	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Minimum generative time (years)? Likely >4] "Peltogyne purpurea is a very slow-growing, deciduous tree that reaches 35 to 40 m in height and 1 m d.b.h."
701	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Unknown, but seeds lack means of external attachment] "Legume pedicellate (about 8 mm.), broadly obovate, about 3 cm. long and 1.6 cm. broad, flattened, glabrous, verrucose-reticulate with narrow sutures, apically mucronulate, slightly arcuate above, rounded below, 1-seeded; seed almost 2 cm. long, obliquely ovate, depressed, persistent on the dehisced fruit hanging by the funicle; funicle dilated into a narrow, cupuliform aril."
702	2003. Boshier, D./Cordero, J.. Árboles de Centroamérica. OFI/CATIE, Oxford/Turrialba	[Propagules dispersed intentionally by people? Yes] Cultivated for timber
703	2002. Vozzo, J.A.. Tropical Tree Seed Manual. USDA Forest Service, Washington, D.C.	[Propagules likely to disperse as a produce contaminant? No. No evidence tree comes into contact with produce] "Peltogyne purpurea produces small, white, fragrant flowers in subterminal panicles several times from early August through September; each crop of flowers lasts 3 days (Allen 1956). The fruit is a brown, flat, obliquely obovoid-oblong one-seeded pod about 5 cm long that matures in great abundance in early February."
704	1994. Mori, S.A./Brown, J.L.. Report on Wind Dispersal in a Lowland Moist Forest in Central French Guiana. Brittonia. 46(2): 105-125.	[Propagules adapted to wind dispersal? Related species wind-dispersed] "A special kind of winged fruit is that of the hemi-legume (Augspurger, 1989). In this type of fruit, the legume splits open and each half, with its attached seeds, serves as the dispersal unit (diaspore). Acacia tenuifolia (Fig. 2), Peltogyne paniculata (Fig. 2), and Recordoylon speciosum (Loubry, 1983, cited as Melanoxylum speciosum Benoist) are examples of hemi-legumes in the flora of central French Guiana."
704	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Propagules adapted to wind dispersal? Yes] "Fruits are single seeded wind-dispersed, dehiscent legumes which explode when dry. P. purpurea grows in red clay soils impoverished by weathering (Weissenhofer and Huber, 2001)."

705	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Propagules water dispersed? Unlikely] "Legume pedicellate (about 8 mm.), broadly obovate, about 3 cm. long and 1.6 cm. broad, flattened, glabrous, verrucose-reticulate with narrow sutures, apically mucronulate, slightly arcuate above, rounded below, 1-seeded; seed almost 2 cm. long, obliquely ovate, depressed, persistent on the dehisced fruit hanging by the funicle; funicle dilated into a narrow, cupuliform aril."
705	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Propagules water dispersed? No evidence] "Fruits are single seeded wind-dispersed, dehiscent legumes which explode when dry. P. purpurea grows in red clay soils impoverished by weathering (Weissenhofer and Huber, 2001)." [Possible that seeds or legumes may float, but primary means of dispersal appears to be wind and/or gravity]
706	1915. Pittier, H.. Some new caesalpiniaceous trees of Panama. Journal of the Washington Academy of Sciences. 5: 468-479.	[Propagules bird dispersed? No evidence] "One of the peculiarities of the morado tree is that the seed remains hanging from the dehiscent pod by the hilum after maturity, probably until the rainy season sets in. This curious habit, which has been observed also in Peltogyne congestiflora Benth., of Brazil, may be considered as a means of protection against ants and other insects, or the extreme dryness of the soil. On the tree, however, the seeds are not immune from attacks, as I found many of them. Inhabited by a coleopterous insect."
706	1951. Anonymous. Flora of Panama. Part V. Fascicle III. Annals of the Missouri Botanical Garden. 38(1): 1-94.	[Propagules bird dispersed? No evidence] "Legume pedicellate (about 8 mm.), broadly obovate, about 3 cm. long and 1.6 cm. broad, flattened, glabrous, verrucose-reticulate with narrow sutures, apically mucronulate, slightly arcuate above, rounded below, 1-seeded; seed almost 2 cm. long, obliquely ovate, depressed, persistent on the dehisced fruit hanging by the funicle; funicle dilated into a narrow, cupuliform aril."
706	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Propagules bird dispersed? No] "Fruits are single seeded wind-dispersed, dehiscent legumes which explode when dry. P. purpurea grows in red clay soils impoverished by weathering (Weissenhofer and Huber, 2001)."
707	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Propagules dispersed by other animals (externally)? No evidence] "Fruits are single seeded wind dispersed, dehiscent legumes which explode when dry. P. purpurea grows in red clay soils impoverished by weathering (Weissenhofer and Huber, 2001)."
708	2007. Lobo, J./Barrantes, G./Castillo, M./Quesada, R./Maldonado, T./Fuchs, E.J./Solıs, S./Quesada, M.. Effects of selective logging on the abundance, regeneration and short-term survival of Caryocar costaricense (Caryocaceae) and Peltogyne purpurea (Caesa	[Propagules survive passage through the gut? Unknown] "Fruits are single seeded wind dispersed, dehiscent legumes which explode when dry. P. purpurea grows in red clay soils impoverished by weathering (Weissenhofer and Huber, 2001)." [Seeds unlikely to be consumed]
801	1977. Allen, P.H.. The Rain Forests of Golfo Dulce. Stanford University Press, Stanford, CA	[Prolific seed production (>1000/m2)? Possibly] "The brown, flat, obliquely obovoid-oblong 1-seeded pods are about 2" long and mature in great abundance in early February."
801	2006. Rocha, O.J./Vílchez, B./Anchetta, A.L.A.. A mast fruiting episode of the tropical tree Peltogyne purpurea (Caesalpinaceae) in the Osa Peninsula, Costa Rica. Revista de Biología Tropical. 54(4): 1151-1155.	[Prolific seed production (>1000/m2)? Possibly] "The existence of mast fruiting has not been well documented in the Neotropics. The occurrence of a mast fruiting episode in the population of the tree Peltogyne purpurea in the Osa Peninsula of Costa Rica is described. In February and March of 2000 most of the trees of this species produced a large fruit crop, compared with 1995-1999, when the number of fruit producing trees was very low or zero and those that did bear fruit, did so at a low intensity."
802	2003. Boshier, D./Cordero, J.. Árboles de Centroamérica. OFI/CATIE, Oxford/Turrialba	[Evidence that a persistent propagule bank is formed (>1 yr)? No] "Las semillas se pueden almacenar en frío (5°C) con contenidos de humedad de 6-8% durante dos a tres años. Bajo condiciones ambientales mantienen su viabilidad únicamente por seis a ocho semanas." [Translation from Spanish: Seeds can be stored in the cold (5^0 C) at a moisture content of 6-8% for two to three years. Under ambient conditions they maintain their viability for only six to eight weeks.]
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species.
804	2012. WRA Specialist. Personal Communication.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown

Summary of Risk Traits

High Risk / Undesirable Traits

- Thrives in tropical climates
- Nitrogen fixing, and may modify soil chemistry and nutrient availability (also may be considered a desirable trait under certain circumstances)
- Fruits are single seeded wind-dispersed, dehiscent legumes which explode when dry

Low Risk / Desirable Traits

- No records of naturalization or invasiveness (although no evidence of cultivation outside native range)
- Limited climatic amplitude (may only thrive in low elevation tropical climates)
- Unarmed
- Slow-growing
- Shade-intolerant
- Timber tree