

Assessment date 14 July 2015

| <i>Mikania cordata</i> |  | Answer | Score |
|------------------------|--|--------|-------|
| 1.01                   | Is the species highly domesticated?  | n      | 0     |
| 1.02                   | Has the species become naturalised where grown?  |        |       |
| 1.03                   | Does the species have weedy races?   |        |       |
| 2.01                   | Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high)<br>North Zone: suited to Zones 8, 9<br>Central Zone: suited to Zones 9, 10<br>South Zone: suited to Zone 10                                     | 2      |       |
| 2.02                   | Quality of climate match data (0-low; 1-intermediate; 2-high)  | 2      |       |
| 2.03                   | Broad climate suitability (environmental versatility)  | y      | 1     |
| 2.04                   | Native or naturalized in habitats with periodic inundation<br>North Zone: mean annual precipitation 50-70 inches<br>Central Zone: mean annual precipitation 40-60 inches<br>South Zone: mean annual precipitation 40-60 inches | y      | 1     |
| 2.05                   | Does the species have a history of repeated introductions outside its natural range?   | ?      |       |
| 3.01                   | Naturalized beyond native range  | y      | 2     |
| 3.02                   | Garden/amenity/disturbance weed  | y      | 2     |
| 3.03                   | Weed of agriculture  | y      | 4     |
| 3.04                   | Environmental weed   | y      | 4     |
| 3.05                   | Congeneric weed  | y      | 2     |
| 4.01                   | Produces spines, thorns or burrs   | n      | 0     |
| 4.02                   | Allelopathic   | ?      |       |
| 4.03                   | Parasitic  | n      | 0     |
| 4.04                   | Unpalatable to grazing animals   | n      | -1    |
| 4.05                   | Toxic to animals   | n      | 0     |
| 4.06                   | Host for recognised pests and pathogens  | unk    | 0     |
| 4.07                   | Causes allergies or is otherwise toxic to humans   | unk    | 0     |
| 4.08                   | Creates a fire hazard in natural ecosystems  | unk    | 0     |
| 4.09                   | Is a shade tolerant plant at some stage of its life cycle  | n      | 0     |
| 4.10                   | Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.   | unk    | 0     |
| 4.11                   | Climbing or smothering growth habit  | y      | 1     |
| 4.12                   | Forms dense thickets   | unk    | 0     |
| 5.01                   | Aquatic  | n      | 0     |
| 5.02                   | Grass  | n      | 0     |
| 5.03                   | Nitrogen fixing woody plant  | n      | 0     |
| 5.04                   | Geophyte   | n      | 0     |
| 6.01                   | Evidence of substantial reproductive failure in native habitat   | n      | 0     |
| 6.02                   | Produces viable seed   | y      | 1     |

|   |  |     |             |
|---|--|-----|-------------|
| 6.03  | Hybridizes naturally   | unk | -1          |
| 6.04  | Self-compatible or apomictic   | unk | -1          |
| 6.05  | Requires specialist pollinators  | unk | 0           |
| 6.06  | Reproduction by vegetative propagation   | y   | 1           |
| 6.07  | Minimum generative time (years)  | unk | -1          |
| 7.01  | Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) | y   | 1           |
| 7.02  | Propagules dispersed intentionally by people   | y   | 1           |
| 7.03  | Propagules likely to disperse as a produce contaminant   | ?   |             |
| 7.04  | Propagules adapted to wind dispersal   | y   | 1           |
| 7.05  | Propagules water dispersed   | y   | 1           |
| 7.06  | Propagules bird dispersed  | unk | -1          |
| 7.07  | Propagules dispersed by other animals (externally)   | y   | 1           |
| 7.08  | Propagules dispersed by other animals (internally)   | unk | -1          |
| 8.01  | Prolific seed production   | ?   |             |
| 8.02  | Evidence that a persistent propagule bank is formed (>1 yr)                                    | ?   |             |
| 8.03  | Well controlled by herbicides  | n   | 1           |
| 8.04  | Tolerates, or benefits from, mutilation or cultivation   | unk | -1          |
| 8.05  |  | ?   |             |
| <b>Total Score</b>                          |  |     | <b>18</b>   |
| <b>Implemented Pacific Second Screening</b> |  |     | <b>No</b>   |
| <b>Risk Assessment Results</b>              |  |     | <b>High</b> |

| section | # questions answered | satisfy minimum? |
|---------|----------------------|------------------|
| A       |                      | 10 yes           |
| B       |                      | 6 yes            |
| C       |                      | 13 yes           |
| total   |                      | 29 yes           |

|      | Reference   | Source data  |
|------|---|--|
| 1.01 |   | Not widely cultivated. No evidence of selection for reduced weediness.   |
| 1.02 |   | Skip to question 2.01  |
| 1.03 |   | Skip to question 2.01  |
| 2.01 | 1. PERAL NAPPFAST Global Plant Hardiness. <a href="http://www.nappfast.org/Plant_hardiness/2012/PHZ%20update%201230%20yr%20%20300dpi.tif">http://www.nappfast.org/Plant_hardiness/2012/PHZ%20update%201230%20yr%20%20300dpi.tif</a> (Accessed: 8 July 2015) 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382</a> (Accessed: 8 July 2015) 3. Encyclopedia of Life. <a href="http://eol.org/data_objects/22745248">http://eol.org/data_objects/22745248</a> (Accessed: 8 July 2015) 4. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a> (Accessed: 8 July 2015) | No computer analysis was performed. 1. Florida North Zone: Hardiness zones 8 and 9. Central Zone: Hardiness zones 9 and 10. Mikania cordata is found in Global Plant Hardiness Zones 8, 9, 10, 11, 12, and 13. 2. Native to China (Hainan, Yunnan), Laos, Myanmar, Thailand, Vietnam, Indonesia, Malaysia, Papua New Guinea, Philippines, Samoa, Solomon Islands 3. See map 4. Present: New Guinea, Papua New Guinea, Philippines, Samoa, Solomon Islands, Cambodia, China, Indonesia, Japan, Malaysia, Singapore, Taiwan, Thailand, Vietnam |
| 2.02 |   | No computer analysis was performed. Native range is well known.  |
| 2.03 | 1. The University of Melbourne. Köppen-Geiger Climate Map of the Wolrd. <a href="http://people.eng.unimelb.edu.au/mpeel/koppen.html">http://people.eng.unimelb.edu.au/mpeel/koppen.html</a> (Accessed: 8 July 2015) 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382</a> (Accessed: 8 July 2015) 3. Encyclopedia of Life. <a href="http://eol.org/data_objects/22745248">http://eol.org/data_objects/22745248</a> (Accessed: 8 July 2015) 4. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a> (Accessed: 8 July 2015)   | 1. Native or Naturalized within Köppen-Geiger zones Af, Am, Aw, BWh, BSh, BSk, Cwa, Cfa, and Cfb 2. Native to China (Hainan, Yunnan), Laos, Myanmar, Thailand, Vietnam, Indonesia, Malaysia, Papua New Guinea, Philippines, Samoa, Solomon Islands 3. See map 4. Present: New Guinea, Papua New Guinea, Philippines, Samoa, Solomon Islands, Cambodia, China, Indonesia, Japan, Malaysia, Singapore, Taiwan, Thailand, Vietnam   |
| 2.04 | 1. Climate Charts. World Climate Maps. <a href="http://www.climate-charts.com/World-Climate-Maps.html#rain">http://www.climate-charts.com/World-Climate-Maps.html#rain</a> (Accessed: 8 July 2015) 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382</a> (Accessed: 8 July 2015) 3. Encyclopedia of Life. <a href="http://eol.org/data_objects/22745248">http://eol.org/data_objects/22745248</a> (Accessed: 8 July 2015) 4. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a> (Accessed: 8 July 2015)  | 1. Native to areas with rainfall in this range 2. Native to China (Hainan, Yunnan), Laos, Myanmar, Thailand, Vietnam, Indonesia, Malaysia, Papua New Guinea, Philippines, Samoa, Solomon Islands 3. See map 4. Present: New Guinea, Papua New Guinea, Philippines, Samoa, Solomon Islands, Cambodia, China, Indonesia, Japan, Malaysia, Singapore, Taiwan, Thailand, Vietnam   |
| 2.05 | 1. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/species/mikania_cordata/">http://www.hear.org/gcw/species/mikania_cordata/</a> (Accessed: 8 July 2015) 2. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a> (Accessed: 8 July 2015)  | 1. Mikania cordata is on the "list of alien species recognized to be established in Japan or found in the Japanese wild." 2. "Uncertain if introduced" in Singapore.   |
| 3.01 | 1. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/species/mikania_cordata/">http://www.hear.org/gcw/species/mikania_cordata/</a> (Accessed: 8 July 2015) 2. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a> (Accessed: 8 July 2015)  | 1. Mikania cordata is on the "list of alien species recognized to be established in Japan or found in the Japanese wild." 2. "Uncertain if introduced" in Singapore.   |

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| 3.02 | 1. A Geographical Atlas of World Weeds. Krieger Publishing Company. (Accessed: 8 July 2015)  | 1. Listed as a Serious Weed in Indonesia and Malaysia, Common Weed in Borneo and India, and Present as a Weed in Ghana, Guinea, Ivory Coast, Liberia, Nigeria, West Polynesia, and Senegal  |
| 3.03 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)  | 1. "A serious weed of plantation crops (rubber, coffee, cocoa and oil palms) and pastures in Indonesia and Malaysia."   |
| 3.04 | 1. The IUCN Red List of Threatened Species.<br><a href="http://www.iucnredlist.org/details/19496/0">http://www.iucnredlist.org/details/19496/0</a> (Accessed: 13 July 2015) 2. Federal Noxious Weed Disseminules of the U.S. USDA. APHIS.<br><a href="http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/act_sheets/Mikania_cordata.htm">http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/act_sheets/Mikania_cordata.htm</a> (Accessed: 13 July 2015) 3. Forest Plants of Eastern India.<br><a href="https://books.google.com/books?id=RQ-tlJSl60C&amp;pg=PA66&amp;lpg=PA66&amp;dq=%22mikania+cordata%22+grazing&amp;source=bl&amp;ots=en40iCb0Yt&amp;sig=F0wkD3htFj2JwRj4cUw_Hxh0F8Q&amp;hl=en&amp;sa=X&amp;ved=0CCsQ6AEwAWoVChMI8-j7bLYxgIVRJENCh2ciwEy#v=onepage&amp;q=%22mikania%20cordata%22%20grazing&amp;f=false">https://books.google.com/books?id=RQ-tlJSl60C&amp;pg=PA66&amp;lpg=PA66&amp;dq=%22mikania+cordata%22+grazing&amp;source=bl&amp;ots=en40iCb0Yt&amp;sig=F0wkD3htFj2JwRj4cUw_Hxh0F8Q&amp;hl=en&amp;sa=X&amp;ved=0CCsQ6AEwAWoVChMI8-j7bLYxgIVRJENCh2ciwEy#v=onepage&amp;q=%22mikania%20cordata%22%20grazing&amp;f=false</a> (Accessed: 13 July 2015) | 1. Weed and climber infestations by <i>Mikania cordata</i> encroach on the habitat of the vulnerable rhinoceri. The destroy parts of the alluvial grasslands and the food source for the animals. 2. "It twines around young tree crops, smothering them and forming dense, tangled masses." 3. "Principal weeds are <i>Diplazium esculentum</i> and <i>Mikania cordata</i> which form thick impenetrable low masses with grazing tracts"   |
| 3.05 | 1. A Geographical Atlas of World Weeds. Krieger Publishing Company. (Accessed: 8 July 2015)  | 1. <i>Mikania micrantha</i> is listed as a serious weed in Fiji, India, and West Polynesia. <i>Mikania scandens</i> is listed as a serious weed in Ceylon (Sri Lanka) and Malaysia.   |
| 4.01 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 13 July 2015) 2. Federal Noxious Weed Disseminules of the U.S. USDA. APHIS.<br><a href="http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/act_sheets/Mikania_cordata.htm">http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/act_sheets/Mikania_cordata.htm</a> (Accessed: 13 July 2015)   | 1&2. These features are not in the description of the species.  |
| 4.02 | 1. Journal of the Rubber Research Institute of Malaya.<br><a href="http://rios.lgm.gov.my/cms/fedDigiContentDetail.jsp?searchText=&amp;selTab=digiCon&amp;id=vital1:24325&amp;type=Article">http://rios.lgm.gov.my/cms/fedDigiContentDetail.jsp?searchText=&amp;selTab=digiCon&amp;id=vital1:24325&amp;type=Article</a> (Accessed: 13 July 2015)   | 1. "Laboratory and pot culture tests have shown that <i>Mikania cordata</i> contains substances which can depress growth of <i>Hevea brasiliensis</i> , tomato and <i>Pueraria phaseoloides</i> , and also strongly inhibit in vitro growth of the fungus <i>Fomes lignosus</i> and depress nitrification in the soil. In the field the harmful effect of <i>M. cordata</i> on other plants appears likely to be the combined result of a direct toxicity and of indirect effects via the soil microflora. Essential oils separated by steam distillation showed inhibitory activity, and chromatographic examination of petroleum ether extracts suggests that the growth inhibitory substances include phenolic and flavonoid constituents, either or both of which may be responsible for the observed effects." |
| 4.03 | 1. Animal and Plant Health Inspection Service. USDA.<br><a href="http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf">http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf</a> (Accessed: 13 July 2015)   | No evidence. 1. "Family is not known to contain parasitic plants (e.g., Heide-Jorgensen, 2008; Nickrent, 2009; Walker, 2010)."  |
| 4.04 | 1. Pertanika J. Trop. Agric. Sci.<br><a href="http://psasir.upm.edu.my/3241/1/Feeding_Time_and_Botanical_Composition_of_Diets_Selected_by_Indigenous.pdf">http://psasir.upm.edu.my/3241/1/Feeding_Time_and_Botanical_Composition_of_Diets_Selected_by_Indigenous.pdf</a> (Accessed: 13 July 2015)  | 1. "The climbing herb <i>Mikania cordata</i> was very palatable [to sheep/goats]"   |
| 4.05 | 1. Pertanika J. Trop. Agric. Sci.<br><a href="http://psasir.upm.edu.my/3241/1/Feeding_Time_and_Botanical_Composition_of_Diets_Selected_by_Indigenous.pdf">http://psasir.upm.edu.my/3241/1/Feeding_Time_and_Botanical_Composition_of_Diets_Selected_by_Indigenous.pdf</a> (Accessed: 13 July 2015)  | 1. "The climbing herb <i>Mikania cordata</i> was very palatable [to sheep/goats]"   |

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| 4.06 |  | No evidence that the taxon is a significant primary or alternate host.  |
| 4.07 |  | No evidence   |
| 4.08 |  | No evidence   |
| 4.09 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)  | 1. "The species will grow in partial shade, but cannot tolerate dense shade"  |
| 4.10 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015) 2. Federal Noxious Weed Disseminules of the U.S. USDA. APHIS.<br><a href="http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/fact_sheets/Mikania_cordata.htm">http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/fact_sheets/Mikania_cordata.htm</a> (Accessed: 13 July 2015)  | No evidence found about soil conditions, other than that the plant 1. "prefers rich, damp soil; rarely grows in dry areas"    |
| 4.11 | 1. Weed Science and Weed Control in Southeast Asia.<br><a href="https://books.google.com/books?id=eAzGwEDvFdiC&amp;pg=PA74&amp;pg=PA74&amp;dq=%22Mikania+cordata%22+climb&amp;source=bl&amp;ots=tJ8BPifEvy&amp;sig=ZKLFr_8DuNCXHZ7PUJBq4PMpp7Q&amp;hl=en&amp;sa=X&amp;ved=0CEEQ6AEwBmoVChMlyOzdpcvYxgIVDJINCh3GXQ75#v=onepage&amp;q=%22Mikania%20cordata%22%20climb&amp;f=false">https://books.google.com/books?id=eAzGwEDvFdiC&amp;pg=PA74&amp;pg=PA74&amp;dq=%22Mikania+cordata%22+climb&amp;source=bl&amp;ots=tJ8BPifEvy&amp;sig=ZKLFr_8DuNCXHZ7PUJBq4PMpp7Q&amp;hl=en&amp;sa=X&amp;ved=0CEEQ6AEwBmoVChMlyOzdpcvYxgIVDJINCh3GXQ75#v=onepage&amp;q=%22Mikania%20cordata%22%20climb&amp;f=false</a><br>(Accessed: 13 July 2015) | 1. "Mikania cordata is a very rapidly growing perennial vine which spreads over the ground and climbs any available support." |
| 4.12 |  | No evidence   |
| 5.01 | 1. Wildflower Information.org.<br><a href="http://www.wildflowerinformation.org/WeedList.asp">http://www.wildflowerinformation.org/WeedList.asp</a> (Accessed: 13 July 2015)   | 1. Listed under "Terrestrial (Plants of the land)" on the Federal Noxious Weed List.  |
| 5.02 | 1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland.<br><a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382</a><br>(Accessed: 13 July 2015)  | 1. "Family: Asteraceae"   |
| 5.03 | 1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland.<br><a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?316382</a><br>(Accessed: 13 July 2015) 2. Animal and Plant Health Inspection Service. USDA.<br><a href="http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf">http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf</a> (Accessed: 13 July 2015)   | No evidence. 1. "Family: Asteraceae" 2. "Asteraceae is not known to fix nitrogen (Martin and Dowd, 1990)"                     |
| 5.04 |  | No evidence of specialized organs   |
| 6.01 |  | No evidence found of substantial reproductive failure   |
| 6.02 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)  | 1. "Propagation: Large amounts of seed transported by the wind or by adhering to human clothing or the hair of animals."      |
| 6.03 |  | No evidence   |
| 6.04 |  | No evidence   |
| 6.05 | 1. Animal and Plant Health Inspection Service. USDA.<br><a href="http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf">http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf</a> (Accessed: 13 July 2015)   | No evidence, but unlikely. 1. "A variety of different pollinator types visit Mikania aurticifolia (Cerana, 2004)."            |

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| 6.06 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015) 2. Federal Noxious Weed Disseminules of the U.S. USDA. APHIS.<br><a href="http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/act_sheets/Mikania_cordata.htm">http://itp.lucidcentral.org/id/fnw/key/FNW_Seeds/Media/Html/act_sheets/Mikania_cordata.htm</a> (Accessed: 13 July 2015)   | 1. "Vegetative reproduction can occur from broken stem fragments that may be dislodged and transported by machinery or by rainfall run-off." 2. "Propagation is by the wind-borne achenes, but vegetative reproduction is probably the more important means of spread. Roots can form at stem nodes, and even on small stem fragments with a single node. Stem fragments can be dispersed by cultivation and other means." |
| 6.07 | 1. Agriculture in the Malaysian Region.<br><a href="https://books.google.com/books?id=yn7GBgAAQBAJ&amp;pg=PA148&amp;lpg=PA148&amp;dq=%22mikania+cordata%22+crop+cover&amp;source=bl&amp;ots=LCjm2a5bvZ&amp;sig=U1HJ99CrnEKanXl5w_Nu5eUtsW4&amp;hl=en&amp;sa=X&amp;ved=0CDcQ6AEwBGoVChMlmaHz-vfYxglVgriACh3brQ0D#v=onepage&amp;q=%22mikania%20cordata%22%20crop%20cover&amp;f=false">https://books.google.com/books?id=yn7GBgAAQBAJ&amp;pg=PA148&amp;lpg=PA148&amp;dq=%22mikania+cordata%22+crop+cover&amp;source=bl&amp;ots=LCjm2a5bvZ&amp;sig=U1HJ99CrnEKanXl5w_Nu5eUtsW4&amp;hl=en&amp;sa=X&amp;ved=0CDcQ6AEwBGoVChMlmaHz-vfYxglVgriACh3brQ0D#v=onepage&amp;q=%22mikania%20cordata%22%20crop%20cover&amp;f=false</a> (Accessed: 13 July 2015) | No evidence, but likely less than one year since it is used as a cover crop (1)  |
| 7.01 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)   | 1. "Vegetative reproduction can occur from broken stem fragments that may be dislodged and transported by machinery or by rainfall run-off." " It is common... along rivers and streams, waste areas, steep hillsides, and even mountainsides from whence winds probably spread the seeds to new areas"  |
| 7.02 | 1. Agriculture in the Malaysian Region.<br><a href="https://books.google.com/books?id=yn7GBgAAQBAJ&amp;pg=PA148&amp;lpg=PA148&amp;dq=%22mikania+cordata%22+crop+cover&amp;source=bl&amp;ots=LCjm2a5bvZ&amp;sig=U1HJ99CrnEKanXl5w_Nu5eUtsW4&amp;hl=en&amp;sa=X&amp;ved=0CDcQ6AEwBGoVChMlmaHz-vfYxglVgriACh3brQ0D#v=onepage&amp;q=%22mikania%20cordata%22%20crop%20cover&amp;f=false">https://books.google.com/books?id=yn7GBgAAQBAJ&amp;pg=PA148&amp;lpg=PA148&amp;dq=%22mikania+cordata%22+crop+cover&amp;source=bl&amp;ots=LCjm2a5bvZ&amp;sig=U1HJ99CrnEKanXl5w_Nu5eUtsW4&amp;hl=en&amp;sa=X&amp;ved=0CDcQ6AEwBGoVChMlmaHz-vfYxglVgriACh3brQ0D#v=onepage&amp;q=%22mikania%20cordata%22%20crop%20cover&amp;f=false</a> (Accessed: 13 July 2015) | 1. Used by farmers as a cover crop.  |
| 7.03 | 1. Invasive Species Compendium.<br><a href="http://www.cabi.org/isc/datasheet/34095">http://www.cabi.org/isc/datasheet/34095</a> (Accessed: 13 July 2015)   | No evidence. 1. "Border clearance personnel with the US Department of Agriculture have intercepted <i>M. micrantha</i> (closely related species) as a contaminant of medicinal herbs from Mexico."   |
| 7.04 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)   | 1. "Propagation: Large amounts of seed transported by the wind" " it is common [on] mountainsides from whence winds probably spread the seeds to new areas"  |
| 7.05 | 1. Animal and Plant Health Inspection Service. USDA.<br><a href="http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf">http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Mikania_micrantha_WRA.pdf</a> (Accessed: 8 July 2015) 2. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)   | 1. "Mikania cordata is reported to have spread quickly in Mauritius via stem fragments in streams and rivers (Csurhes and Edwards, 1998)" 2. "it is common... along rivers and streams"  |
| 7.06 |   | No evidence  |
| 7.07 | 1. Pacific Island Ecosystems at Risk.<br><a href="http://www.hear.org/pier/species/mikania_cordata.htm">http://www.hear.org/pier/species/mikania_cordata.htm</a><br>(Accessed: 8 July 2015)   | 1. "Propagation: Large amounts of seed transported... by adhering to human clothing or the hair of animals."   |
| 7.08 |   | No evidence  |
| 8.01 | 1. Biotropia.<br><a href="http://journal.biotrop.org/index.php/biotropia/article/viewFile/110/82">http://journal.biotrop.org/index.php/biotropia/article/viewFile/110/82</a> (Accessed: 13 July 2015)   | 1. There were anywhere from 31 to 43 unfilled and 134 to 428 total seeds per panicle, however it is unknown how many panicles there are per plant.   |
| 8.02 | 1. Kew Seed Information Database.<br><a href="http://data.kew.org/sid/SidServlet?Source=epic&amp;ID=15510&amp;Num=gwc">http://data.kew.org/sid/SidServlet?Source=epic&amp;ID=15510&amp;Num=gwc</a> (Accessed: 13 July 2015)   | 1. "Storage Behaviour: No data available for species."   |
| 8.03 | 1. Food & Fertilizer Technology Center for the Asian and Pacific Region.<br><a href="http://www.agnet.org/htmlarea_file/activities/20110826121346/paper-729213301.pdf">http://www.agnet.org/htmlarea_file/activities/20110826121346/paper-729213301.pdf</a> (Accessed: 13 July 2015)  | 1. "Herbicides have also been used in an attempt to eradicate infestations but with little success."   |

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| 8.04 | 1. Invasive Species Compendium.<br><a href="http://www.cabi.org/isc/datasheet/34095">http://www.cabi.org/isc/datasheet/34095</a> (Accessed: 13 July 2015) | No evidence, however it is likely because <i>Mikania micrantha</i> is known to benefit from mutilation or cultivation (1) |
| 8.05 |   | No information available concerning the natural enemies of <i>Mikania cordata</i> .                                       |