

Family: *Xanthorrhoeaceae*

Taxon: *Hemerocallis lilioasphodelus*

Synonym: *Hemerocallis flava* (L.) L.
Hemerocallis lilioasphodelus var. *flavus*
Hemerocallis lilioasphodelus var. *major*
Hemerocallis lutea

Common Name: lemon day-lily
lemon-lily
yellow day-lily
bei huang hua cai

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation: L
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score -1
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)	Low
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	n
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		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)	y
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	n
405	Toxic to animals		y=1, n=0	n
406	Host for recognized pests and pathogens		y=1, n=0	
407	Causes allergies or is otherwise toxic to humans		y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle		y=1, n=0	
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	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	
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	
604	Self-compatible or apomictic	y=1, n=-1	y
605	Requires specialist pollinators	y=-1, n=0	
606	Reproduction by vegetative fragmentation	y=1, n=-1	
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	2
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	y
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	n
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	
801	Prolific seed production (>1000/m2)	y=1, n=-1	n
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 -1

Supporting Data:

101	2010. WRA Specialist. Personal Communication. HPWRA,	No evidence.
201	2010. USDA, ARS, National Genetic Resources Program.. Germplasm Resources Information Network - (GRIN) [Online Database].. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?28398	Native range: Armenia; Russian Federation - Eastern Siberia, Western Siberia, Amur, Primorye; Mongolia; China - Gansu, Hebei, Heilongjiang, Henan, Jiangsu, Jiangxi, Jilin, Liaoning, Shaanxi, Shandong, Shanxi; Italy; Slovenia
202	2010. USDA, ARS, National Genetic Resources Program.. Germplasm Resources Information Network - (GRIN) [Online Database].. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?28398	Native range: Armenia; Russian Federation - Eastern Siberia, Western Siberia, Amur, Primorye; Mongolia; China - Gansu, Hebei, Heilongjiang, Henan, Jiangsu, Jiangxi, Jilin, Liaoning, Shaanxi, Shandong, Shanxi; Italy; Slovenia
203	2010. Dave's Garden. Lemon Lily, Custard Lily, Yellow Daylily Lemon Lily, Custard Lily, Yellow Daylily Hemerocallis flava. Dave's Garden, http://davesgarden.com/guides/pf/go/54798/	USDA Hardiness Zones: 3a-9b.
204	2008. Anisko, T.. When Perennials Bloom: An Almanac for Planning and Planting. Timber Press, Portland, Oregon http://books.google.com/books?id=ODYpMZXFnSQC&pg=PA251&lpg=PA251&dq=hemerocallis+lilioasphodelus+%2B+%22naturalized%22&source=bl&ots=HElibXQvLM&s	Hemerocallis lilioasphodelus was introduced to Europe during the Middle Ages, but had been used in China as food and medicine for centuries before that. It has been naturalized in parts of Europe and North America.
205	1968. Hu, S.Y.. The species of Hemerocallis. The American Horticultural Magazine. 47: 86 - 120.	Hemerocallis lilioasphodelus has been used extensively in hybridization.
205	2008. Anisko, T.. When Perennials Bloom: An Almanac for Planning and Planting. Timber Press, Portland, Oregon http://books.google.com/books?id=ODYpMZXFnSQC&pg=PA251&lpg=PA251&dq=hemerocallis+lilioasphodelus+%2B+%22naturalized%22&source=bl&ots=HElibXQvLM&s	Hemerocallis lilioasphodelus was introduced to Europe during the Middle Ages, but had been used in China as food and medicine for centuries before that. It has been naturalized in parts of Europe and North America.
301	2008. Anisko, T.. When Perennials Bloom: An Almanac for Planning and Planting. Timber Press, Portland, Oregon http://books.google.com/books?id=ODYpMZXFnSQC&pg=PA251&lpg=PA251&dq=hemerocallis+lilioasphodelus+%2B+%22naturalized%22&source=bl&ots=HElibXQvLM&s	Hemerocallis lilioasphodelus was introduced to Europe during the Middle Ages, but had been used in China as food and medicine for centuries before that. It has been naturalized in parts of Europe and North America.
302	2007. Randall, R.. Global Compendium of Weeds. http://www.hear.org/gcw/	No evidence of control for weediness. However, the GCW does list this species as a garden escapee.
303	2007. Randall, R.. Global Compendium of Weeds. http://www.hear.org/gcw/	No evidence.
304	2007. Randall, R.. Global Compendium of Weeds. http://www.hear.org/gcw/	No evidence of management or control of this species. However the GCW does list this species as an environmental weed.
305	2010. Mid-Atlantic Exotic Pest Plant Council Inc.. Invasive Exotic Plant Management Tutorial for Natural Land Managers. http://www.dcnr.state.pa.us/forestry/invasivetutorial/Biocontrol.htm	Hemerocallis fulva is invasive in Mid-Atlantic (USA) natural areas. It is controlled by digging up the plant, including all of the root system.
305	2010. The American Hemerocallis Society. Listing Hemerocallis fulva as an invasive species.. http://www.daylilies.org/AHSinforeleaseinvasives.pdf	"Several state and agency publications and websites currently list Hemerocallis fulva as an invasive species. Due to its long life span and use in erosion control, H. fulva is often found near old home sites and along drainage ditches. The same properties that allow it to flourish in these settings with no care can also allow it to be considered invasive in certain settings where its slowly spreading habit might displace some native plants over time."

401	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	No spines, thorns or burrs
402	2010. WRA Specialist. Personal Communication. HPWRA,	Unknown
403	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	Not parasitic.
404	2010. Male-Brune, R.. Deer resistance rating for landscape plants. http://www.gardeningindeercountry.com/plant-table.php	<i>Hemerocallis</i> spp. are occasionally severely damaged by deer grazing. [genus description]
405	2010. National Center for Biotechnology Information. PubMed. http://www.ncbi.nlm.nih.gov/sites/entrez	No evidence of toxicity in PubMed.
405	2010. United States National Library of Medicine. TOXNET Toxicology Data Network. Specialized Information Services, http://toxnet.nlm.nih.gov/cgi-bin/sis/search	No evidence of toxicity in ToxNet.
406	1968. Smith, F.F.. Insects and related pests of daylilies. The American Horticultural Magazine. 47: 201-206.	<i>Hemerocallis</i> spp. are seldom attacked by insects and diseases. Aphids, thrips, spider mites, long-horned weevil, cutworms, and rust have been reported to damage <i>Hemerocallis</i> spp.
407	2010. National Center for Biotechnology Information. PubMed. http://www.ncbi.nlm.nih.gov/sites/entrez	No evidence of toxicity in PubMed.
407	2010. United States National Library of Medicine. TOXNET Toxicology Data Network. Specialized Information Services, http://toxnet.nlm.nih.gov/cgi-bin/sis/search	No evidence of toxicity in ToxNet.
408	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86-120.	Herbaceous perennial
409	2010. Backyard Gardener. <i>Hemerocallis lilioasphodelus</i> . http://www.backyardgardener.com/plantname/pd_8f84.html	Part shade to sun
409	2010. Dave's Garden. Lemon Lily, Custard Lily, Yellow Daylily Lemon Lily, Custard Lily, Yellow Daylily <i>Hemerocallis flava</i> . Dave's Garden, http://davesgarden.com/guides/pf/go/54798/	Full sun, sun to partial shade
410	2010. Backyard Gardener. <i>Hemerocallis lilioasphodelus</i> . http://www.backyardgardener.com/plantname/pd_8f84.html	pH range: 4.5 to 8. Soil range: mostly sand to mostly clay.
410	2010. Dave's Garden. Lemon Lily, Custard Lily, Yellow Daylily Lemon Lily, Custard Lily, Yellow Daylily <i>Hemerocallis flava</i> . Dave's Garden, http://davesgarden.com/guides/pf/go/54798/	Soil pH requirements: 6.1 to 6.5 (mildly acidic), 6.6 to 7.5 (neutral), 7.6 to 7.8 (mildly alkaline)
411	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86-120.	Erect herbaceous perennial; leaves 30" long 7/8" wide, ascending-spreading.
412	2010. WRA Specialist. Personal Communication. HPWRA,	Unknown
501	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Terrestrial.
502	2010. USDA, ARS, National Genetic Resources Program.. Germplasm Resources Information Network - (GRIN) [Online Database].. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?28398	Xanthorrhoeaceae

503	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Herbaceous
504	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Not a geophyte.
601	2010. WRA Specialist. Personal Communication. HPWRA,	No evidence.
602	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	"A single plant of <i>Hemerocallis lilioasphodelus</i> may yield several hundred seeds from which fine plants may be had in the course of two or three years."
603	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Unknown. <i>Hemerocallis lilioasphodelus</i> has been used extensively in hybridization.
603	2004. Peat, J.P., Petit, T.L.. The daylily: a guide for gardeners. Timber Press, Portland, Oregon http://books.google.com/books?hl=en&lr=&id=TA-IXxQAdcMC&oi=fnd&pg=PA8&dq=Hemerocallis+aurantiaca+%2B+%22seed%22&ots=NEOOnWfk dN&sig=E_mTCD0rfUtOJgRGRenLeMIAu	Most <i>Hemerocallis</i> species cross naturally, yielding fertile hybrids.
604	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	Capsules and seeds are readily formed to self-pollination.
605	2010. WRA Specialist. Personal Communication.	Unknown
606	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	<i>Hemerocallis lilioasphodelus</i> has sturdy creeping rhizomes that may extend through the soil to a distance of a foot or more before they turn upward to produce roots and leaves. "Daylilies are easily propagated by dividing the plant. So tenacious of life are daylilies that an uprooted plant or a segment of a plant which is left lying on the ground will live and grow for some time and may even take root in the soil and become established. [genus description]"
606	2010. Dave's Garden. Lemon Lily, Custard Lily, Yellow Daylily Lemon Lily, Custard Lily, Yellow Daylily <i>Hemerocallis flava</i> . Dave's Garden, http://davesgarden.com/guides/pf/go/54798/	(1) Propagate by rootball
607	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	A single plant of <i>Hemerocallis lilioasphodelus</i> may yield several hundred seeds from which fine plants may be had in the course of two or three years
701	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	<i>Hemerocallis lilioasphodelus</i> has sturdy creeping rhizomes that may extend through the soil to a distance of a foot or more before they turn upward to produce roots and leaves. "Daylilies are easily propagated by dividing the plant. So tenacious of life are daylilies that an uprooted plant or a segment of a plant which is left lying on the ground will live and grow for some time and may even take root in the soil and become established. [genus description]"
702	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	"The lemon daylily (<i>Hemerocallis lilioasphodelus</i>) has been a favorite garden flower in Europe for at least three and a half centuries."
702	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	<i>Hemerocallis lilioasphodelus</i> has been used extensively in hybridization.
703	2010. WRA Specialist. Personal Communication. HPWRA,	Not grown with produce. Seed capsules not used in flower arrangements.
704	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Capsules 3-lobed, obovoid, 1-11/4 in. long, obtuse and notched at the rounded tip. Seeds black, irregularly ribbed, subspherical, 1/8 in. in diameter. [no adaptation for wind dispersal]"
705	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Capsules 3-lobed, obovoid, 1-11/4 in. long, obtuse and notched at the rounded tip. Seeds black, irregularly ribbed, subspherical, 1/8 in. in diameter.

706	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Capsules 3-lobed, obovoid, 1-11/4 in. long, obtuse and notched at the rounded tip. Seeds black, irregularly ribbed, subspherical, 1/8 in. in diameter.
707	1968. Hu, S.Y.. The species of <i>Hemerocallis</i> . The American Horticultural Magazine. 47: 86 - 120.	Capsules 3-lobed, obovoid, 1-11/4 in. long, obtuse and notched at the rounded tip. Seeds black, irregularly ribbed, subspherical, 1/8 in. in diameter. [no means of external attachment].
708	2010. WRA Specialist. Personal Communication.	Unknown.
801	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	A single plant of <i>Hemerocallis lilioasphodelus</i> may yield several hundred seeds from which fine plants may be had in the course of two or three years.
802	1934. Stout, A.B.. Daylilies: The Wild Species and Garden Clones, Both Old and New of the Genus <i>Hemerocallis</i> . The Macmillan Company, New York	Proliferations develop on the flower scapes. These structures arise as buds and develop into small plants with stem and leaves, and frequently with roots too. Many sorts of daylilies never have proliferations, but various hybrids and polyploids have them rather abundantly.
802	1968. Voth, P.D., Griesbach, R.A., Yeager, J.R.. Developmental anatomy and physiology of daylily. The American Horticultural Magazine. 47: 121-151.	Viability of <i>Hemerocallis</i> spp. may be high for six months or so, under temperature and humidity conditions found in most homes. After six months viability drops off rapidly [genus description].
803	2010. WRA Specialist. Personal Communication. HPWRA,	Unknown
804	2010. WRA Specialist. Personal Communication. HPWRA,	Unknown
805	2010. Mid-Atlantic Exotic Pest Plant Council Inc.. Invasive Exotic Plant Management Tutorial for Natural Land Managers. http://www.dcnr.state.pa.us/forestry/invasivetutorial/Biocontrol.htm	According to the Mid-Atlantic Pest Council, no biocontrol has been introduced to Hawaii.
805	2010. WRA Specialist. Personal Communication.	Unknown.