Family: Malvaceae

Print Date: 6/8/2010

Taxon: Hibiscus syriacus

Synonym:

Common Name rose of Sharon

shrub-althaea

Que Stat	stionaire :	current 20090513 Assessor Approved	Assessor: Data Entry Person	Chuck Chimera: Chuck Chimera	Designation: EVALUATE WRA Score 5	
101	Is the species hi	ghly domesticated?			y=-3, n=0	y
102	Has the species	become naturalized where g	rown?		y=1, n=-1	y
103	Does the species	s have weedy races?			y=1, n=-1	y
201		o tropical or subtropical clin tropical" for "tropical or su		ily wet habitat, then	(0-low; 1-intermediate; 2-high) (See Appendix 2)	Intermediate
202	Quality of clima	ate match data			(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate s	suitability (environmental ve	rsatility)		y=1, n=0	y
204	Native or natur	alized in regions with tropic	al or subtropical climates		y=1, n=0	n
205	Does the species	s have a history of repeated i	ntroductions outside its na	tural range?	y=-2, ?=-1, n=0	y
301	Naturalized bey	ond native range			y = 1*multiplier (see Appendix 2), n= question 205	у
302	Garden/amenit	y/disturbance weed			n=0, y = 1*multiplier (see Appendix 2)	у
303	Agricultural/fo	restry/horticultural weed			n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental	weed			n=0, y = 2*multiplier (see Appendix 2)	
305	Congeneric wee	ed			n=0, y = 1*multiplier (see Appendix 2)	у
401	Produces spines	s, 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	y
405	Toxic to animal	s			y=1, n=0	n
406	Host for recogn	ized pests and pathogens			y=1, n=0	y
407	Causes allergies	s or is otherwise toxic to hun	nans		y=1, n=0	n
408	Creates a fire h	azard in natural ecosystems			y=1, n=0	n
409	Is a shade toler	ant plant at some stage of its	life cycle		y=1, n=0	
410	Tolerates a wid	e range of soil conditions (or	limestone conditions if no	t a volcanic island)	y=1, n=0	y
411	Climbing or sm	othering growth habit			y=1, n=0	n

412 Forms dense thickets  501 Aquatic  502 Grass  503 Nitrogen fixing woody plant  504 Geophyte (herbaceous with underground storage organs bulbs, corms, or tubers)  505 Evidence of substantial reproductive failure in native habitat  506 Produces viable seed  507 Aquatic  508 y=1, n=0  509 y=1, n=0  500 Produces viable seed  500 Produces viable seed	n n n n n y
502 Grass  503 Nitrogen fixing woody plant  504 Geophyte (herbaceous with underground storage organs bulbs, corms, or tubers)  601 Evidence of substantial reproductive failure in native habitat  602 Produces viable seed  603 Hybridizes naturally  y=1, n=0  y=1, n=0  y=1, n=0  y=1, n=0	n n n
503 Nitrogen fixing woody plant  504 Geophyte (herbaceous with underground storage organs bulbs, corms, or tubers)  601 Evidence of substantial reproductive failure in native habitat  602 Produces viable seed  603 Hybridizes naturally  y=1, n=0  y=1, n=0  y=1, n=-1	n n
504 Geophyte (herbaceous with underground storage organs bulbs, corms, or tubers)  y=1, n=0  Evidence of substantial reproductive failure in native habitat  y=1, n=0  y=1, n=-1  Hybridizes naturally  y=1, n=-1	n n
601 Evidence of substantial reproductive failure in native habitat  y=1, n=0  y=1, n=-1  602 Produces viable seed  y=1, n=-1  y=1, n=-1	n
602 Produces viable seed y=1, n=-1 603 Hybridizes naturally y=1, n=-1	
603 Hybridizes naturally y=1, n=-1	y
604 Solf compatible or anomistic	
5en-companion of apolineur y-1, n-1	y
605 Requires specialist pollinators y=-1, n=0	n
606 Reproduction by vegetative fragmentation y=1, n=-1	y
607 Minimum generative time (years)  1 year = 1, 2 or 3 year 4+ years = -1	rs = 0,
Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked y=1, n=-1 areas)	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 y=1, n=-1	
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	
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) y=-1, n=1	
Designation: EVALUATE WRA Sec	ore 5

ipporting Data:				
101	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	It has been cultivated in China, Japan, and Korea since antiquity, and is the national flower of Korea.		
101	2010. The Ohio State University. Hibiscus syriacus. http://www.hcs.ohio-state.edu/hcs/TMI/Plantlist/hi_iacus.html	green to brown, ornamentally unattractive five-valved dehiscent capsules are persistent throughout much of the Winter on older cultivars; most modern cultivars are virtually fruitless [certain cultivars can be sterile]		
102	2010. USDA, ARS, National Genetic Resources Program Hibiscus syriacus - Germplasm Resources Information Network - (GRIN) [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.p	widely naturalized		
103	2006. Burrell, C. C./Marinelli, J./Harper-Lore, B Native alternatives to invasive plants. Brooklyn Botanic Garden, Brooklyn, NY	Invasive Shrub: Hibiscus syriacus - Rose of Sharon; Current Invaded Range: New York to Missouri, south to Georgia and Texas, Utah. Native Alternatives: Scarlet Mallow (Hibiscus coccineus) [considered invasive in Virginia]		
201	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Although Linnaeus thought this species was native to the Palestine area, H. syriacus is actually native to temperate China. [temperate species, cultivated in Hawaii]		
202	2010. The Ohio State University. Hibiscus syriacus. http://www.hcs.ohio-state.edu/hcs/TMI/Plantlist/hi_iacus.html	Habitat: zones 5 to 8; native to China and India		
203	2005. Hériteau, J Complete trees, shrubs & hedges. Creative Homeowner, Upper Saddle River, NJ	Hardiness: USDA Zones 5-8		
203	2010. Dave's Garden. PlantFiles: Rose of Sharon, Althea. Dave's Garden, http://davesgarden.com/guides/pf/go/788/	Hardiness: USDA Zone 5a: to -28.8 °C (-20 °F) USDA Zone 5b: to -26.1 °C (-15 °F) USDA Zone 6a: to -23.3 °C (-10 °F) USDA Zone 6b: to -20.5 °C (-5 °F) USDA Zone 7a: to -17.7 °C (0 °F) USDA Zone 7b: to -14.9 °C (5 °F) USDA Zone 8a: to -12.2 °C (10 °F) USDA Zone 8b: to -9.4 °C (15 °F) USDA Zone 9a: to -6.6 °C (20 °F)		
204	2005. Wagner, W. L./Herbst, D. R./Lorence, D. H Flora of the Hawaiian Islands website. Smithsonian Institution, http://botany.si.edu/pacificislandbiodiversity/hawaiianflora/index.htm	No records of naturalization in the Hawaiian Islands		
204	2010. WRA Specialist. Personal Communication.			
205	2010. USDA, ARS, National Genetic Resources Program Hibiscus syriacus - Germplasm Resources Information Network - (GRIN) [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.arsgrin.gov/cgi-bin/npgs/html/taxon.p	widely cultivated		
301	1983. Jones, R.L Woody Flora of Shiloh National Military Park, Hardin County, Tennessee. Castanea. 48 (4): 289-299.	naturalized from Asia.		
301	2008. Plants for a Future Database. Hibiscus syriacus. Plants for a Future Database, http://www.pfaf.org/database/plants.php?Hibiscus+syriacus	Locally naturalized in S. Europe. [Tennessee]		
301	2010. Serviss, B.E Non-native Woody Plants of Arkansas - rose-of-sharon; althaea Hibiscus syriacus. Henderson State University, Arkadelphia, AR http://www.hsu.edu/default.aspx?id=6352	Hibiscus syriacus is a large shrub or small tree, attaining a height of 4 meters or more, that is native to Asia. This species is naturalized in scattered locations across Arkansas and over much of the eastern US.		
302	2006. Georgia Exotic Pest Plant Council. List of Non-Native Invasive Plants in Georgia. Wildland Weeds. 9(4): 15-18.	Category 3 – A minor exotic plant problem in Georgia natural areas, or not yet known to be a problem in Georgia, but known to be a problem in adjacent states. [list includes H. syriacus]		

302	2007. Aronson, M.F.J./Handel, S.N./Clemants, S.E Fruit type, life form and origin determine the success of woody plant invaders in an urban landscape. Biological Invasions. 9: 465–475.	Many of the most successful alien plants in the New York metropolitan area, such as Ampelopsis brevipedunculata (Maxim.) Trautv., Elaeagnus umbellata Thunb., and C. orbiculata Thunb., have been introduced and cultivated for horticultural purposes. However, not all well known ornamental plants have increased in range, such as Hibiscus syriacus L. and Ligustrum vulgare L. These species continue to be cultivated and, despite widespread horticultural introductions, have decreased in range. [H. syriacus decreasing in range]
302	2009. Tourkow, A Prohibited Plant List For the South Carolina Upstate Region. Appalachian Council of Governments, http://www.greenstepschools.com/greensteps/pdf/UPSTATE%20SC%20-%20Prohibited%20Plant%20List%20-%20FINAL%20Update%207-10-9.pdf	This exotic species seeds itself aggressively; therefore, it is unacceptable to meet long term landscaping needs.
302		It grows in full sun to light shade and invades waste areas, disturbed ground, forest, and forest edges. It prefers a well-drained humus rich fertile soil within USDA zones 5-10.
303	2007. Randall, R.P Global Compendium of Weeds - Hibiscus syriacus. Hawaii Ecosystems at Risk Project (HEAR), http://www.hear.org/gcw/species/hibiscus_syriacus/	A weed of disturbed sites [no evidence as a weed of agriculture or forestry]
304	2010. USDA Forest Service. Weed of the Week - Rose of Sharon. USDA Forest Service, Newton Square http://www.na.fs.fed.us/fhp/invasive_plants/weeds/rose-of-sharon.pdf	Ecological Impacts: It has escaped intended plantings to invade, crowd out and displace more desirable native plants. [but primarily a nuisance weed of disturbance. See 3.02]
305	2002. Smith, N.M Weeds of the wet/dry tropics of Australia - a field guide. Environment Center NT,	Disturbed areas, riparian habitats and Eucalyptus savanna. A native of Africa it is now widespread in most tropical countries. Naturalised from Darwin to the Katherine region and across the north of Western Australia. It is not particularly invasive in Queensland as yet. Seed is dispersed when eaten by birds and animals and expelled. Spread intentional as a cultivated ornamental and food plant. Competes with native species.
305	2007. Hussey, B.M.J./Keighery, G. J./Dodd, J./Lloyd, S.G./Cousens, R.D Western Weeds. A Guide to the Weeds of Western Australia. The Weed Society of Western Australia, Victoria Park, WA	The fruiting calyx becomes red and fleshy and has been used as 'filler' for jam. It is a garden escape, occurring as a weed of wasteland, creeks and river edges in the Kimberly.
401	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	No spines, thorns or burrs
402	1992. Rizvi, S.J.H./Rizvi, V Allelopathy: basic and applied aspects. Chapman & Hall, London, UK	No evidence of allelopathy [although H. syriacus seeds were tested to evaluate allelopathic effects on them]
403	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Not parasitic
404	1988. Conover, M.R./Kania, G.S Browsing Preference of White-Tailed Deer for Different Ornamental Species. Wildlife Society Bulletin. 16 (2): 175-179.	0% of foliage browsed by white-tailed deer
404	1991. Marsh, R.E Landscape Plants, Forest Tress, and Crops Most Resistant to Mammal Damage: an Overview.	Table 1. Ornamentals found to be browsed little or not at all by white-tailed deer (Odocoileus virginianus) in a landscape nursery study conducted in Connecticut. [includes H. syriacus]
404	2007. Skelly, J./Smith, E Choosing the Right Plants for Northern Nevada's High Fire Hazard Areas. University of Nevada Cooperative Extension, Reno, NV	This plant is not bothered by rabbits, squirrels or deer.

405	2010. USDA Forest Service. Weed of the Week - Rose of Sharon. USDA Forest Service, Newton Square http://www.na.fs.fed.us/fhp/invasive_plants/weeds/rose-of-sharon.pdf	·
406	1993. Gilman, E.F./Watson, D.G Hibiscus syriacus Hibiscus syriacus - Rose-of-Sharon. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL http://hort.ufl.edu/trees/HIBSYRA.pdf	Although usually strong and easy to grow, hibiscus can be bothered by aphids which accumulate at the tips of stems, causing new growth to be misshapen. Aphids may cover the leaves with sticky honeydew. The insects can be dislodged with high pressure water sprays from the garden hose or controlled by pinching off the part of the twig with the insects. Over-fertilizing increases aphid infestations.In northern gardens, Japanese beetles are particularly fond of the flowers. Diseases If leaf spots are seen, pick off and destroy the infected leaves. If bacterial leaf spot causes problems, pick off and destroy infected leaves. Canker can kill branches or entire plants. Bright, reddish-orange fruiting bodies may appear on the bark. Prune out infected branches. Flowers may be infected with a blight caused by a fungus. Bud drop can be caused by too much or too little water or over fertilization.
406	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Numerous chewing and sucking insects attack the foliage, including scale, mealybugs, thrips, aphids, caterpillars and Chinese rose beetles; these can be controlled with the appropriate insecticides.
407	2008. Plants for a Future Database. Hibiscus syriacus. Plants for a Future Database, http://www.pfaf.org/database/plants.php?Hibiscus+syriacus	Known Hazards: None KnownEdible Parts: Flowers; Leaves; Root. Edible Uses: Tea. [no evidence of toxicity or allergenic properties]
408	2007. Skelly, J./Smith, E Choosing the Right Plants for Northern Nevada's High Fire Hazard Areas. University of Nevada Cooperative Extension, Reno, NV	Recommended for fire prone areas [apparently does not create a fire hazard]
409	2004. Levy-Yamamori, R./Taaffe, G Garden plants of Japan. Timber Press, Portland, OR	Light: best in full sun
409	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	easy to cultivate, requiring full sun
409	2010. Serviss, B.E Non-native Woody Plants of Arkansas - rose-of-sharon; althaea Hibiscus syriacus. Henderson State University, Arkadelphia, AR http://www.hsu.edu/default.aspx?id=6352	Plants prefer exposure to several hours of direct sun per day, however, will survive and grow under conditions of increased levels of shade.
410	1997. Dirr, M Dirr's Hardy trees and shrubs: an illustrated encyclopedia. Timber Press, Portland, OR	Grows in any soil, except those that are extremely dry or wet. Quite pH adaptable.
410	2010. The Ohio State University. Hibiscus syriacus. http://www.hcs.ohio-state.edu/hcs/TMI/Plantlist/hi_iacus.html	prefers moist, well-drained soils supplemented with organic matter in full sun, but is very adaptable to various soils, soil pHs, soil compaction, drought, heavy pruning, and pollution (and is therefore urban tolerant)
411	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Erect shrub or treelet usually 6-12 feet tall [not climbing or smothering]
412	2010. USDA Forest Service. Weed of the Week - Rose of Sharon. USDA Forest Service, Newton Square http://www.na.fs.fed.us/fhp/invasive_plants/weeds/rose-of-sharon.pdf	No evidence that H. syriacus forms dense thickets
501	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Terrestrial
502	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Malvaceae

503	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Malvaceae [not a nitrogen fixing woody plant]		
504	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Not a geophyte		
01	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	No evidence of substantial reproductive failure in native habitat		
02	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Seeds ca. 0.2" long, silky-hairy along edges		
02	2009. Harrison, M Flowering Shrubs and Small Trees for the South. Pineapple Press Inc, Sarasota, FL	Some altheas were introduced by the National Arboretum during the '60s and '70s that are sterile triploids. They have larger flowers that bloom earlier than the species, and they set no seeds [this assessment is for species, and not sterile cultivars]		
02	2010. The Ohio State University. Hibiscus syriacus. http://www.hcs.ohio-state.edu/hcs/TMI/Plantlist/hi_iacus.html	propagated primarily by rooted stem cuttings, but also by seeds		
603	Hybridization Between Hibiscus syriacus L. and	Different Hibiscus syriacus L. cultivars (diploid 'Melwhite' and 'Oiseau Bleu' and tetraploid 'Red Heart cv' and 'Purple cv') were used in a breeding program with Hibiscus paramutabilis Bailey. Compared to Hibiscus syriacus, a well-known winter hardy ornamental shrub, Hibiscus paramutabilis grows more vigorously, with larger leaves and flowers. When used as a seed parent, H. paramutabilis failed to set fruits. However, when pollinated by H. paramutabilis, H.s. 'Oiseau Bleu' and H.s. 'Red Heart cv' reacted by fruit setting. Fruits containing swollen (=fertilized) ovules were not observed on H.s. 'Melwhite' or H.s. 'Purple cv'. After putting the isolated embryos in vitro 5 H.s. 'Red Heart cv' x H. paramutabilis embryos could be converted. Respectively 1 and 6 plants were acclimatized and put in soil; they grew vigorously and leaves of all showed strong morphological similarities with H. paramutabilis. Ploidy analysis of these potential hybrids revealed that the H.s. 'Red Heart cv' offspring was triploid, as was expected. AFLP analysis confirmed the hybrid character of all tested seedlings. [unknown if natural hybrids can form]		
504	2010. Serviss, B.E Non-native Woody Plants of Arkansas - rose-of-sharon; althaea Hibiscus syriacus. Henderson State University, Arkadelphia, AR http://www.hsu.edu/default.aspx?id=6352	Hibiscus syriacus is capable of self-pollination and subsequent self-fertilization, and juvenile plants are often seen in the vicinity of a single, reproductive age plant.		
505	2008. Plants for a Future Database. Hibiscus syriacus. Plants for a Future Database, http://www.pfaf.org/database/plants.php?Hibiscus+syriacus	The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects.		
06	2010. Dave's Garden. PlantFiles: Rose of Sharon, Althea. Dave's Garden, http://davesgarden.com/guides/pf/go/788/  Where I live in Middle Tennessee this is an extremely invasive plant. It has co under my concrete patio and asphalt driveway and sent up tough, woody stalk as much as 40 feet from the original shrub. My advice would definitely be to pon this rascal.			
506	2010. USDA Forest Service. Weed of the Week - This prolific seeder has a deep taproot that is difficult to remove once the plant is Rose of Sharon. USDA Forest Service, Newton Square  http://www.na.fs.fed.us/fhp/invasive_plants/weeds /rose-of-sharon.pdf			
507	1993. Gilman, E.F./Watson, D.G Hibiscus The growth rate ranges from slow to moderate, and transplanting is easy. syriacus Hibiscus syriacus - Rose-of-Sharon. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL http://hort.ufl.edu/trees/HIBSYRA.pdf			
'01	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Fruit elliptic-ovoid, 0.5-0.8" long, beaked, densely yellowish-hairy. Seeds ca. 0.2" long, silky-hairy along edges [no evidence, and no means of external attachment]		
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702	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Cultivated ornamentally
703	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Seeds ca. 0.2" long, silky-hairy along edges [no evidence that seeds contaminate produce]
704	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Seeds ca. 0.2" long, silky-hairy along edges [no obvious adaptations for wind dispersal]
704	2010. The Ohio State University. Hibiscus syriacus. http://www.hcs.ohio-state.edu/hcs/TMI/Plantlist/hi_iacus.html	if fruit capsules are present, they will shatter over the course of the dormant season and spread their easily germinating seeds around the base of the parent plant, forming colonies with time if in naturalized or neglected areas [gravity dispersed]
706	2005. Staples, G. W./Herbst, D. R A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Fruit elliptic-ovoid, 0.5-0.8" long, beaked, densely yellowish-hairy. Seeds ca. 0.2" long, silky-hairy along edges [not fleshy-fruited]
707	1993. Gilman, E.F./Watson, D.G Hibiscus syriacus Hibiscus syriacus - Rose-of-Sharon. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL http://hort.ufl.edu/trees/HIBSYRA.pdf	Fruit characteristics: does not attract wildlife; inconspicuous and not showy; no significant litter problem; persistent on the tree [no evidence of animal dispersal, and no means of external attachment]
708	2010. WRA Specialist. Personal Communication.	Unknown if seeds survive passage through gut [but no evidence that seeds are consumed]
301	2010. Dave's Garden. PlantFiles: Rose of Sharon, Althea. Dave's Garden, http://davesgarden.com/guides/pf/go/788/	This is an extremely invasive plant. I had several of them removed from one side of my yard, and the next year, millions of little seedlings came up in an adjacent bed, and I had to painstakingly pull them all out. 2 years later, I am still getting seedlings here and there. [anecdotal evidence of prolific seed production]
802	2008. Liu, K./Eastwood, R. J./Flynn, S./Turner, R. M./Stuppy, W. H Seed Information Database (release 7.1, May 2008). http://www.kew.org/data/sid	Storage Behaviour: Orthodox
803	2010. USDA Forest Service. Weed of the Week - Rose of Sharon. USDA Forest Service, Newton Square http://www.na.fs.fed.us/fhp/invasive_plants/weeds/rose-of-sharon.pdf	Chemical- It can be effectively controlled using any of several readily available general use herbicides such as glyphosate. Follow label and state requirements.
804	2008. Plants for a Future Database. Hibiscus syriacus. Plants for a Future Database, http://www.pfaf.org/database/plants.php?Hibiscus +syriacus	Plants rarely require pruning [219], though they respond well to pruning and trimming and this is best carried out in the spring or just after flowering[219].
804	2010. The Ohio State University. Hibiscus syriacus. http://www.hcs.ohio-state.edu/hcs/TMI/Plantlist/hi_iacus.html	very adaptable to various soils, soil pHs, soil compaction, drought, heavy pruning, and pollution (and is therefore urban tolerant)
805	2010. WRA Specialist, Personal Communication.	Unknown if effective natural enemies present locally