Plant Propagation Protocol for [Peltandra virginica] ESRM 412 – Native Plant Production URL: https://courses.washington.edu/esrm412/protocols/2022/PEVI

TAXONOMY		
Plant Family		
Scientific Name	Araceae	
Common Name	Arum family	
Species Scientific		
Name		
Scientific Name	Peltandra virginica (L.) Schott	
Varieties	None recognized by USDA	
Sub-species	None recognized by USDA	
Cultivar	N/A	
Common Synonym(s)	Peltandra undulata, Peltandra tharpii	
Common Name(s)	Green arrow arum, arrow arum, tuckahoe, green arum	
Species Code (as per	PEVI	
USDA Plants		
database)		
	GENERAL INFORMATION	
Geographical range	USDA Plants Database 2014	

	USDA Plants Database 2014
Ecological distribution	Aquatic plant, occurs in marshes, swamps, wetlands, lakes, ponds, and
	other shallow water (Native Plant Trust 2022, Lady Bird Johnson
	Wildflower Center 2018)
Climate and elevation	Wide distribution of climates, ranging from Northern Canada to Florida.
range	USDA hardiness zone 4-8 (USDA 2014, PFAF Plant Database n.d.)
Local habitat and	Often grows in clusters along the edge of the water. Does not
abundance	aggressively colonize like many other aquatic plants (Lady Bird Johnson
	Wildflower Center 2018)
Plant strategy type /	Peltandra virginica is a stress-tolerator that can grow in light, medium or
successional stage	heavy soils. It is able to withstand acidic soils and being submerged in
	water (PFAF Plant Database n.d.).
Plant characteristics	<i>Peltandra virginica</i> is a perennial, helophytic, rhizomatous, aquatic herb.
	It grows up to .3m tall with large, triangular basal leaves. Flowers form
	on a monecious spadix, surrounded by a thin, wavy, green spathe. Fruits
	are black berries (Lady Bird Johnson Wildflower Center 2018, PFAF
	Plant Database n.d.)
	PROPAGATION DETAILS (seeds)
Ecotype	Hamilton Marshes, New Jersey (West 1975)
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	Variable
Time to Grow	One year (Toogood 1999)
Target Specifications	Peltandra virginica is slow growing but reaches a mature height of .3m
	(PFAF Plant Database n.d.)
Propagule Collection	Collect seeds when ripe in late summer (Practical Plants n.d.)
Instructions	
Propagule	Seeds form inside berries on a dense spadix (Lady Bird Johnson
Processing/Propagule	Wildflower Center 2018). It is best to sow seeds immediately after
Characteristics	collection, but if this is not possible, they may be stored in clean water in
	a cool, dark place (Toogood 1999).

Pre-Planting Propagule	Removal of the fruit wall and mucilage, as well as stratification for 1	
Treatments	week at 5C results in the highest percentage of germinated seeds (West	
	1975).	
Growing Area	Sow seeds evenly on the surface of deep trays or containers with aquatic	
Preparation / Annual	soil mix. Cover with a fine layer of grit, about as thick as the seedlings	
Practices for	are wide (Toogood 1999).	
Perennial Crops		
Establishment Phase	Place container in standing water so it is submerged or partially covered,	
Details	as seedlings require excessive water. Do not fertilize, as it encourages	
	harmful algal growth. Allow bright light (Toogood 1999).	
Length of	5-15 days (West 1975)	
Establishment Phase		
Active Growth Phase	Once seedlings grow their first pair of true leaves, transplant them into	
	individual containers. Submerge in standing water as before, raising the	
	water level to accommodate new growth. Stems and leaves should float	
	freely on the water surface (Toogood 1999).	
Length of Active	No specific length of time specified.	
Growth Phase		
Hardening Phase	Continue to add water, allowing stems to float freely. Place under a sheet	
	of glass tall enough to allow for air circulation. Do not allow water to	
	freeze during winter (Toogood 1999).	
Length of Hardening	No specific length of time specified.	
Phase		
Harvesting, Storage	Peltandra virginica is sensitive to desiccation. Do not allow plants or	
and Shipping	propagules to dry out during transportation (Toogood 1999).	
Length of Storage	None specified	
Guidelines for	Seedlings can be outplanted in Spring after the last frost of the year	
Outplanting /	(Practical Plants n.d.). <i>Peltandra virginica</i> is slow growing and seedlings	
Performance on	might take up to 3-4 years before flowering in outplanting sites (Toogood	
Typical Sites	1999).	
Other Comments	No collection restrictions	
PROPAGATION DETAILS (rhizome division)		
Ecotype	N/A	
Propagation Goal	Plants	
Propagation Method	Vegetative	
Product Type	Container	
Stock Type	Variable	
Time to Grow	Propagules can be outplanted immediately after division but tend to have	
	the best results when allowed to grow roots and establish first (Practical	
	Plants n.d.).	
Target Specifications	Peltandra virginica is slow growing but reaches a mature height of .3m	
	(PFAF Plant Database n.d.)	
Propagule Collection	Divide in the Spring to allow adequate time during the growing season	
Instructions	for healing. Cut the rhizome into sections, ensuring that each has 2-3	

	growth buds and roots (Toogood 1999, Hartmann 2010, Practical Plants n.d.).
Propagule	See propagule treatments below.
Processing/Propagule	
Characteristics	
Pre-Planting Propagule	Gently wash soil and remove dead tissue and debris from propagules.
Treatments	This helps prevent the growth of harmful or pathogenic algae (Toogood
	1999).
Growing Area	Plant divisions slightly below the soil level in containers with fresh
Preparation / Annual	aquatic soil. Allow the container to sit partially submerged in water, as
Practices for	Peltandra virginica requires wet soil (Toogood 1999).
Perennial Crops	
Establishment Phase	N/A
Details	
Length of	N/A
Establishment Phase	
Active Growth Phase	N/A
Length of Active	N/A
Growth Phase	
Hardening Phase	Keep plants in shallow water, deep enough to allow the stems to grow
	freely. Continue to raise water level in response to new growth.
	Overwinter plants in water, never allowing them to freeze or frost to form
	(100good 1999).
Length of Hardening	None specified. Plants should be transitioned to overwintering conditions
Phase	by late Fall.
Harvesting, Storage	<i>Peltandra virginica</i> is sensitive to desiccation. Do not allow plants or
and Shipping	Propagules to dry out during transportation (100g000 1999).
Cuidelines for	None specified
Outplanting /	division Otherwise, propagales can be outplanted in late spring or corly
Durplanting /	summer (Practical Plants n.d.)
Typical Sites	summer (Fractical Frants fi.d.)
Other Comments	No collection restrictions
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