Plant Propagation Protocol for *Oxalis Corniculata L.*

ESRM 412 – Native Plant Production

URL: https://courses.washington.edu/esrm412/protocols/2023/OXCO.pdf

Source: USDA

TAXONOMY	
Plant Family	
Scientific Name	Oxalidaceae R. Br.
Common Name	Wood-Sorrel family
Species Scientific Name	
Scientific Name	*Oxalis corniculata* L.
Varieties	Oxalis corniculata L. var. atropurpurea Planch. Oxalis corniculata L. var. corniculate Oxalis corniculata L. var. lupulina (R. Knuth) Zucc. Oxalis corniculata L. var. langloisii (Small) Wiegand Oxalis corniculata L. var. macrophylla Arsene ex R. Knuth Oxalis corniculata L. var. minor Laing Oxalis corniculata L. var. reptans Laing Oxalis corniculata L. var. villosa (M. Bieb.) Hohen. Oxalis corniculata L. var. viscidula Wiegand
Sub-species	
Cultivar	N/A
Common Synonym(s)	Oxalis langloisii (Small) Fedde Oxalis pusilla Salisb. Oxalis repens Thunb. Oxalis villosa M. Bieb. Xanthoxalis corniculata (L.) Small Xanthoxalis corniculata (L.) Small var. atropurpurea (Planch.) Moldenke

	Xanthoxalis langloisii Small Xanthoxalis repens (Thunb.) Moldenke
Common Name(s)	creeping woodsorrel, ihi 'ai, yellow wood sorrel
Species Code (as per USDA Plants database)	OXCO
GENERAL INFORMATION	
Geographical range	This plant grows across the majority of the US  Source:USDA
Ecological distribution	Grows all over but it prefers disturbed ground such as agricultural areas, urban areas, and greenhouses. (UCANR Weeds)
Climate and elevation range	Up to 8200 ft in elevation but usually below 2500 ft (UCANR Weeds)
Local habitat and abundance	Grows in many areas regardless of competition growing alongside many ornamentals and grasses in urban areas and alongside other plants in agricultural areas.
Plant strategy type / successional stage	Weed/herb
Plant characteristics	This plant is classified as in weed in many areas and has a chance of growing in the greenhouse whether or not one is trying to propagate it. It is a perennial or annual forb that is growing almost all year. When flowers emerge they are generally yellow with 5 petals and stay in bloom much of the year. Their leaves look akin to clover. (UCANR Weeds)

PROPAGATION DETAILS	
Ecotype	
Propagation Goal	Plants
Propagation Method	Seed sowing
Product Type	Would recommend propagules (seeds) in containers. If field sown hard to remove from the area for future plant propagation
Stock Type	
Time to Grow	Depends on temperature but relatively rapid.
Target Specifications	Up to 12 inches high when fully mature. Leaves are green but puple margins can occur. Leaf stalks of around 3 inches and leaflette size very variable. (UCANR Weeds)
Propagule Collection Instructions	Pick fruit pods when ripe, they should be dry and relatively easy to split open at this point. (Native Plant Trust)
Propagule Processing/Propagule Characteristics	Seed pods will explode when mature and contain a highly variable amount of seeds. (UCANR Weeds)
Pre-Planting Propagule Treatments	Make sure they are in an isolated area otherwise they are liable to spread in a ten foot radius (though possibly more or less) upon seed pod explosion. (UCANR Weeds) The seeds have no dormancy stage. (NCSU) Make sure area is one where the plant cannot easily spread once out of the container otherwise it will be very difficult to remove from the area you are growing it in for future use. The main seed prep required is the removal of seeds from their pea like capsules
Growing Area Preparation / Annual Practices for Perennial Crops	A more disturbed growing media would be good for the plant. (UCANR Weeds) Moist but well drained medium, germination hindered by too much moisture. (Royal Horticultural Society) It should be noted that this is a weed that grows even in urban areas while these options may be its ideal nearly anything will work to grow it. Whatever container is easiest to clean and isolate would likely be best. (UCANR Weeds) After using the container clean thoroughly and carefully otherwise liable to have the creeping wood-sorrel act as a weed for the next plant in the container. (UCANR Pestnotes)
Establishment Phase Details	Prefers 60-80 degrees Fahrenheit for germination but can tolerate colder temperatures, it dislikes high heat and moisture especially. (UCANR Pestnotes)

	The seedlings should be exposed to sunlight to germinate. (UCANR Pestnotes)
Length of Establishment Phase	Rapid (UCANR Pestnotes)
Active Growth Phase	Prefers non-extremely hot temperatures (UCANR Pestnotes)
Length of Active Growth Phase	Flowering occurs after about 4 weeks (UCANR Pestnotes)
Hardening Phase	As long as there is a reasonable amount of moisture it can grow in both sun and shade. (UCANR Pestnotes) notably another source says it cannot grow in the shade (PFAF) so may be best to try sunny areas.
Length of Hardening Phase	Takes 2-5 years before it is fully grown. (Royal Horticultural Society)
Harvesting, Storage and Shipping	Be careful to avoid root nodules or seeds leaking out of storage as it will become a pervasive weed in ones greenhouses
Length of Storage	Preferably minimal to give the plant less chances to spread outside of storage and become a weed in your nursery.
Guidelines for Outplanting / Performance on Typical Sites	Once taproot and roots are established it is very difficult to kill even with bad weather. (UCANR Weeds) It grows nearly all year round. (UCANR Pestnotes) Plant with the knowledge it will likely spread quite aways from the initial planting site if the weather is to its preference. (UCANR Weeds) It is highly competitive establishing quickly and will affect other plants grown on the site. (UCANR Pestnotes) Look above for time to flower and potential height
Other Comments	Commonly mistaken with Bermuda Buttercup. (UCANR Pestnotes) Even if picked it can grow back from root nodules. (Royal Horticultural Society) While mildly poisonous it does have moth edible and medicinal uses in moderation with proper treatment. (PFAF)
INFORMATION SOURCES	
References	*USDA Plants Database*. (n.d.-b). https://plants.usda.gov/home/plantProfile?symbol=OXCO *Weed Gallery: Creeping woodsorrel--UC IPM*. (n.d.). https://ipm.ucanr.edu/PMG/WEEDS/creeping_woodsorrel.html

	Creeping Woodsorrel and Bermuda Buttercup Management Guidelines--UC IPM. (n.d.). https://ipm.ucanr.edu/PMG/PESTNOTES/pn7444.html *Oxalis corniculata (creeping yellow wood sorrel): Go Botany*. (n.d.). https://gobotany.nativeplanttrust.org/species/oxalis/corniculata/ *Oxalis corniculata | creeping oxalis Herbaceous Perennial/RHS Gardening*. (n.d.). Royal Horticultural Society. https://rhs.org.uk/plants/160181/oxalis-corniculata/details *Oxalis corniculata (Creeping Woodsorrel) | North Carolina Extension Gardener Plant Toolbox*. (n.d.). https://plants.ces.ncsu.edu/plants/oxalis-corniculata/ *Oxalis corniculata Yellow Sorrel, Creeping woodsorrel PFAF Plant Database*. (n.d.). https://pfaf.org/user/plant.aspx?LatinName=Oxalis+corniculata
Other Sources Consulted	Groom QJ, Van der Straeten J, Hoste I. 2019. The origin of *Oxalis corniculata* L. *PeerJ* 7:e6384 https://doi.org/10.7717/peerj.6384 *Creeping woodsorrel*. (2018, June 28). College of Agricultural Sciences. https://horticulture.oregonstate.edu/weed/creeping-woodsorrel Li, S., Zhang, Y., & Liu, J. (2020). Seed ejection mechanism in an Oxalis species. *Scientific reports*, *10*(1), 8855. https://doi.org/10.1038/s41598-020-65885-2
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