



### Often Confused with:

1. Water lilies
2. Hybrid lilies
3. Fanwort

## Water-Shield, Dollar Bonnet *Brasenia schreberi*

Water Shield is a rooted plant that is often found in quite, slow moving waters up to 6' in depth. The leaves are oval with stems attached in the center. The surface of the leaves are usually green in color but may show some purple when in warmer waters. The underside of the plant, including the stems and flowers are reddish purple in color and most submerged portions of the plant are covered in a thick jelly-like substance. It's often assumed that this thick protective layer is

where it's name, Water Shield comes from but it actually stems from the shield like shape of the leaves.

Water Shield seems to favor slightly acidic pH and sandy loam soils. It spreads by rhizomes that creep through the pond bottom but it also pro-

duces seed. It's thought that the jelly-like coating releases something that deters the growth of competing plants (though Bladderwort is often present). Because of this Water Shield can be very difficult to control and will often out grow other plants until it is the only remaining species.

flowers are present from June—September and usually last two days. Day one the flower emerges as a female, then sinks below the surface only to re-emerge the second day as a male flower.



Water Shield

### Control of Water-Shield

Water-Shield is best treated topically because of the jelly-like substance covering the submerged portions of the plant. Imazapyr based products such as Polaris or Habitat are the first choice when treating this plant. Imazapyr is a strong systemic herbicide and great care should be taken to ensure non-target species are not adversely effected by the use of this product.

Triclopyr based products are also

effective in the treatment of Water Shield. Renovate 3 is a common choice. These are not as strongly systemic and are less of a threat to surrounding vegetation. This option is also slightly less effective on the target plant and repeat applications may be necessary to achieve control.

Waters treated with either Imazapyr or Triclopyr based products can not be used for

irrigation purposes for at least 120 days.

Sonar or Fluridone based products can be used but treatment rates are very high and costly. Granular 2,4-d has also been used to control Water-shield but is costly and should be applied by a licensed applicator.

Currently there are no known biological means to effectively control Water Shield. Grass Carp will not eat Water Shield

### Treatment Options:

1. Imazapyr—\$100/ac
2. Triclopyr—\$135/ac
3. 2,4-d granular—\$300/acft
4. Sonar—\$155/acft

Note: All prices are estimated and based on one acre foot of water and subject to change.