

TECHNICAL BULLETIN

BULLETIN #STB-125

PEAT MOSS AS A SOURCE FOR TWO COMMON GREENHOUSE WEEDS

GENERAL INFORMATION

Bittercress (*Cardamine* sp.) and Yellow Woodsorrel (*Oxalis stricta*) are two of the most common greenhouse weeds in the US. Both plants produce prolific amounts of seed and are capable of ejecting them over long distances. Growers often question how these weeds can enter their facilities. Most commonly, these weeds enter the greenhouse as seed on a product or person. Once the seed germinates, the plants can grow rapidly and produce seeds themselves before a grower even notices them. Often these weeds are found on the floor, along walls, and near doorways. With the ability to 'shoot' or eject their seeds, they soon contaminate crops. Growers should inspect all plant material entering their operation for any signs of weeds. Also, storage areas for media, plastics and equipment should be kept free of weeds to prevent contamination. Rigorous weed removal before seeds are produced and treating the ground with a labeled pre-emergent herbicide are the best methods for control.

PLANT CHARACTERISTICS

Cardamine sp.— There are two species of *Cardamine* that are common in greenhouses— *C. hirsuta* and *C. pennsylvanica*. Of the two, *C. pennsylvanica* has a broader range that includes nearly all of N. America. Although *C. pennsylvanica* can be found in Canada, it is not common or wide spread. *C. hirsuta* is not found in the peat producing areas of Canada. Both of these species grow rapidly and can begin to flower shortly after the first set of true leaves have developed. It is difficult to distinguish between the two and usually requires assistance from a taxonomist.

Oxalis Stricta— This plant is a native of the US and is distributed throughout most of the lower 48 states. It is less common in the north central states. In nature, it is considered an upland plant and is not common to wetland areas.



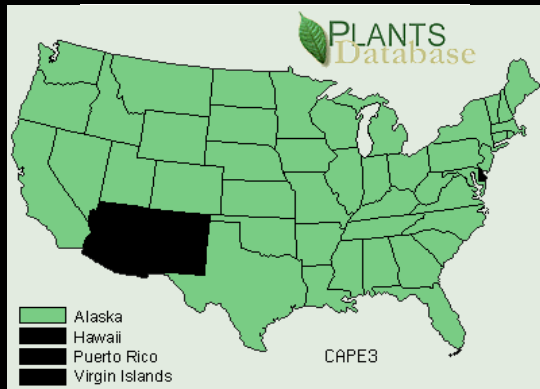
OXALIS STRICTA
YELLOW WOODSORREL



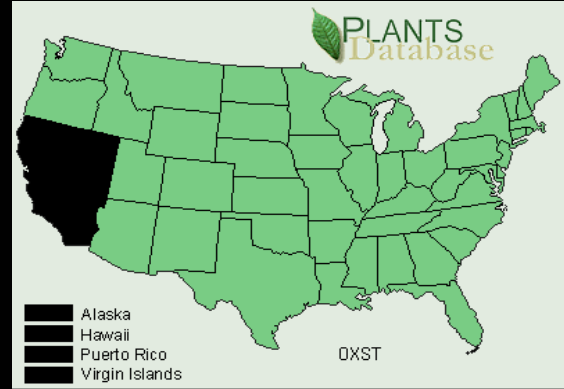
C. HIRSUTA
HAIRY BITTERCRESS



C. PENNSYLVANICA
BITTERCRESS



Distribution of *C. pensylvanica* (USDA)



Distribution of *Oxalis stricta* (USDA)

BOG SURVEY

Peat Moss and Peat based mixes are often claimed as the source for these two weeds. In an effort to determine if this is true, Sun Gro has conducted plant surveys at several of its production bogs in Canada. In 1991 and again in 2004, the bogs in Elma, Manitoba were surveyed under the direction of the University of Winnipeg, Biology Dept.. Extensive mapping and counting of plant species was carried out. All plant species were identified and ranked based on frequency of occurrence. In 1995 a similar survey was conducted at the Seba Beach, Alberta bogs. The bogs in New Brunswick completed their last survey in 1998. Neither *C. hirsuta* or *O. stricta* was identified in the surveys or found at any of the Sun Gro bogs. Research of literature and reference books such as Plants of the Western Boreal Forest & Aspen Parkland confirm that these species are not known to exist near the bog areas of Canada. *C. pensylvanica* has been identified near the Alberta bogs and specific control measures are taken to prevent contamination of harvest area. All Sun Gro production sites both in Canada and the US have weed management programs in place. Based on our weed identification and weed control program we believe our peat to be Bittercress and Wood sorrel seed free.



Counting and identifying plant species



Peat bog being harvested

SUN GRO
HORTICULTURE

15831 N.E. 8th Street, Suite 100
Bellevue, WA 98008
Internet homepage: www.sungro.com

Call your Sun Gro representative for more information:
Toll-free Customer Resource Centers:

Western Region: 1-888-797-7328 Fax: 1-888-797-6494
Central Region: 1-888-982-4500 Fax: 1-888-982-4501
Eastern Region: 1-888-896-1222 Fax: 1-888-896-1444

