

OXALIS — BIOLOGY AND CONTROL

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(from: *Flower News*, February 16, 1985)

One of the characteristics of oxalis which contributes to its noxiousness is explosive seed dispersal from elongated pods. Numerous, viable seeds are dehiscent to distances of 4 meters. An understanding of seed production, dispersal and germination is very important in the control of oxalis.

Many experiments have been completed, or are underway, on seed germination in oxalis. The temperature limits to germination range from 50° to 84°F. Seeds produced during the summer have higher maximum and minimum temperature limits than those produced in winter.

Seed germination of oxalis requires light to occur; therefore, a shallow mulch over the surface of a pot will inhibit seed germination.

Viability of aged oxalis seeds has been tested. Fresh seeds have nearly 100% viability. Seeds stored for as long as 1 year have 83% germination relative to fresh seeds. Therefore, viability decreases somewhat as seeds age in storage, yet this natural decay will not adequately control oxalis seed germination.

Heat treatments of seeds in a moist oven to determine the effect of soil sterilization on oxalis germination were evaluated. Treatment for 10 minutes at temperatures up to and including 212°F and above inhibits all germination. At lower

temperatures, germination is at least 90%, even after 30 minutes of treatment.

Thus, soil sterilization which usually involves heating soil to 180°F for 30 minutes may not destroy seeds of oxalis.

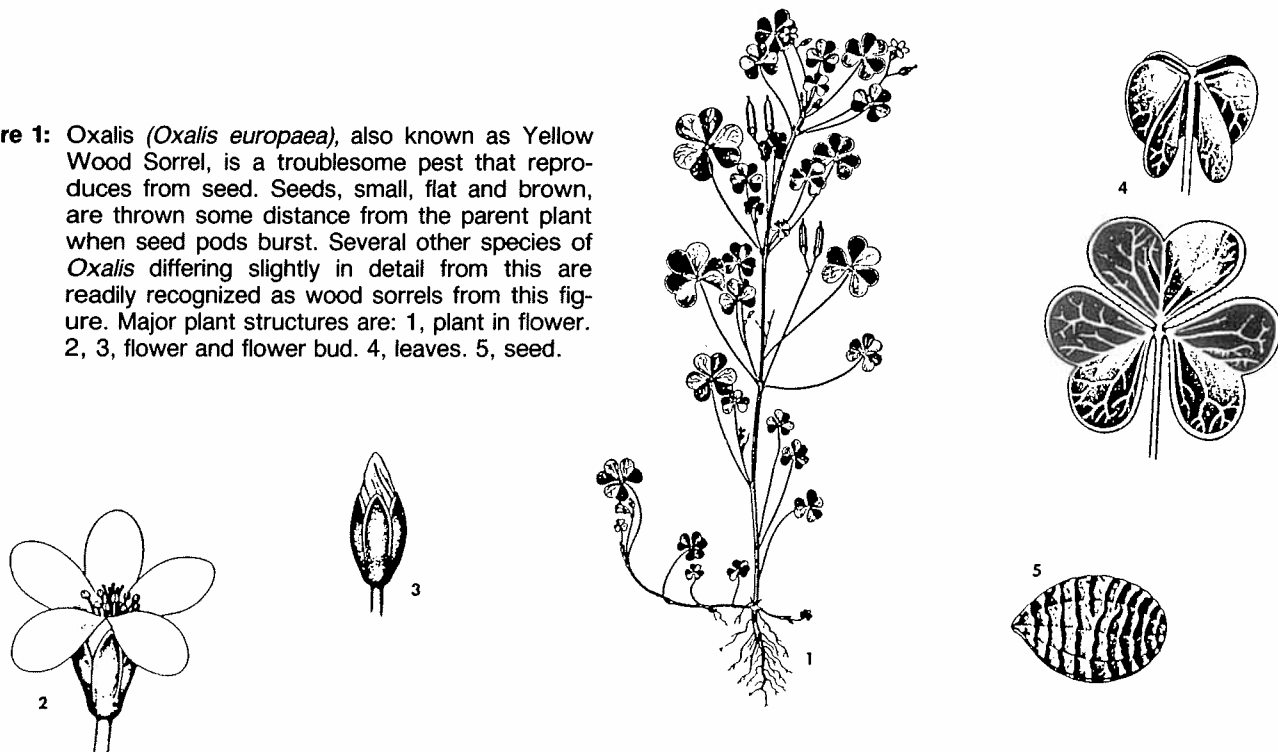
Few herbicides are effective for control of oxalis in greenhouse container ornamentals. In recent years, several growth regulators (which are registered as herbicides) have been shown to completely kill oxalis.

Studies indicate that naphthaleneacetic acid (NAA) is very effective in killing oxalis with safety to a wide range of ornamental species. A rate of 5 lb./acre (approximately 1%) is sufficient to kill even adult oxalis and prevent seedling growth when applied over the top or by 1-time sub-irrigation for 24 hours.

Seeds of oxalis treated with NAA at a concentration as low as 1/8th germinate but do not grow.

New directions in the control of oxalis in container plants involve an understanding of the biology of this plant, and experimentation with several growth regulators for their herbicidal properties. Future work will involve mode of action studies with NAA in oxalis and further refinement of the rates and procedures to use in applying NAA.

Figure 1: Oxalis (*Oxalis europaea*), also known as Yellow Wood Sorrel, is a troublesome pest that reproduces from seed. Seeds, small, flat and brown, are thrown some distance from the parent plant when seed pods burst. Several other species of *Oxalis* differing slightly in detail from this are readily recognized as wood sorrels from this figure. Major plant structures are: 1, plant in flower. 2, 3, flower and flower bud. 4, leaves. 5, seed.



(Illustration from: Weeds of The North Central States, University of Illinois Ag. Expt. Station Circular 718, p97).

Gid du aldrig havde vist ham den artikel om strategisk styring!

Who does this remind us of?
Perish the thought it could
be one of us! Turn up side
down for translation. From
the *Gartner Tidende* (Danish)
magazine for March, 1985.



I wish you had never shown him that article on strategic planning.



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