

Wild Poinsettia Identification And Control In Peanut

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In recent years, ineffective weed management, changes in crop production practices, and plant adaptability have contributed to the increased distribution and prevalence of several weed species in peanut fields. One of these weeds is wild poinsettia (*Euphorbia heterophylla*). A recent survey of county extension agents in Georgia suggests that wild poinsettia is considered to be the eighth most troublesome weed of peanut and the sixteenth most troublesome weed of all the major crops grown in the state.



Figure 1. Wild poinsettia in peanut field (S.M. Brown)



Figure 2. Wild poinsettia seedling (S.M. Brown)

Biology

Wild poinsettia, also known as painted-leaf or catalina, is a member of the Euphorbiaceae (Spurge) plant family. Other members of this family include such common weeds as hophornbeam copperleaf (*Acalypha ostryifolia*), spotted spurge (*Euphorbia maculata*), and tropic croton (*Croton glandulosus*). Wild poinsettia is an annual, herbaceous plant that can grow up to 24-58 inches tall. The stems of wild poinsettia and other members of the spurge family exude a milky, latex-like fluid when broken or crushed. Other special identifying features include its linear cotyledons (seed leaves) and variable leaf shapes. Linear, lanceolate, and elliptic leaves may all appear on the same plant when mature (Figure 3). In some instances, the leaves may have small red blotches. However, there can be significant differences in the growth characteristics of wild poinsettia populations found in the southeast.



Figure 3. Wild poinsettia variable leaf shapes (S.M. Brown)

Wild poinsettia's ability to develop under a wide range of conditions has helped contribute to its increased presence in Georgia. Wild poinsettia seed do not require light to germinate and

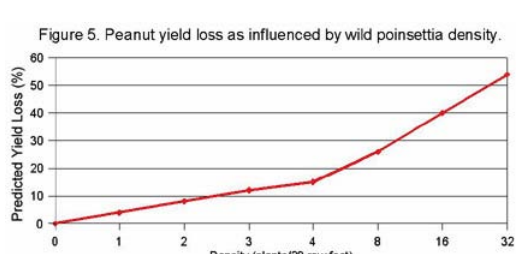
the optimum temperature for germination is 86-95 degrees F. Seed can germinate in soils with a pH range of 2.5-10 and under limited moisture conditions. Wild poinsettia plants produce an average of 520 seeds per plant. Seedlings have the capacity to emerge from depths of 5 1/2 inches but most emergence occurs from a depth of 1-2 inches.



Figure 4. Wild poinsettia seed-head (S.M. Brown)

Competition with Peanut

Wild poinsettia is very competitive with peanut. It is more competitive than sicklepod (*Senna obtusifolia*) and Florida beggarweed (*Desmodium tortuosum*). Research has shown that peanut must be maintained weed-free of wild poinsettia for at least 10 weeks after emergence to prevent substantial yield losses. Additionally, wild poinsettia that is allowed to grow for more than 2 weeks after peanut emergence can also significantly reduce yields. Density studies conducted in Georgia have indicated that full-season competition of wild poinsettia has the potential to reduce peanut yields as illustrated in Figure 5.



Control

Peanuts are unique in the fact that they are grown in wide rows, have a short plant stature, and a relatively long growing season. This, along with the fact that wild poinsettia can germinate and develop throughout the growing year, makes full-season control difficult to achieve.

The best approach to control most weeds in peanut is to use a combination of soil-applied and postemergence herbicides. PursuitR (imazethapyr) and StrongarmR (diclosulam) are the only two soil-applied herbicides labeled at this time that have good-to-excellent activity on wild poinsettia. Newer soil-applied peanut herbicides presently under development, including SpartanR (sulfentrazone) and ValorR (flumioxazin), also provide good-to-excellent control of wild poinsettia and can be used as part of a total management system once they are labeled. At-cracking applications of paraquat1 + StormR (bentazon + acifluorfen) can be very effective but will not control later emerging plants. Acceptable post-emergence control of wild poinsettia can be obtained with a timely application of either Ultra-BlazerR (acifluorfen) or CadreR (imazapic) before the plants exceed 2 inches in height. Cadre applied post-emergence also provides some residual control of wild poinsettia. Δ

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1Paraquat is sold under various trade names such as Boar and Gramoxone MaxR.

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