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And the survey says...

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And the survey says...

Abstract

Results from a weed survey conducted at meetings across Iowa this past year are in. The three main objectives of the survey were:

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Weed Management And the survey says . . .

by Kristine Schaefer, Department of Agronomy, and Carol Pilcher,
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Results from a weed survey conducted at meetings across Iowa this past year are in. The three main objectives of the survey were:

- to learn more about the weeds that Iowa producers view as most troublesome in their corn, soybean, and pasture or noncrop areas
- to introduce and create awareness for a few weed species that may be invasive or problematic in Iowa
- to learn more about the current distribution of these weed species in Iowa.

Identification characteristics for five weed species were presented and surveys were distributed to producers at 12 Crop Advantage Series meetings across Iowa and to commercial applicators attending a Commercial Continuing Instructional Course meeting. Overall, the response rate to the optional survey was very good with 888 out of 1,483 growers completing the survey for a return rate of 59.9 percent at the Crop Advantage Series meetings and 114 out of 192 applicators at the Commercial Continuing Instructional Course for a similar response rate of 59.4 percent.

The top five most troublesome weeds in corn and soybeans, according to survey respondents, are listed in Table 1. Waterhemp was ranked as the most troublesome weed in both corn and soybeans with over half the respondents reporting it as the number one weed problem in their soybean fields. In corn, woolly cupgrass ranked a close second to waterhemp as the most troublesome weed.

Table 1. Percent of survey respondents who listed their most troublesome weed in corn and soybeans in 2004.

Weed	Corn	Weed	Soybean
	Most Troublesome (%)		Most Troublesome (%)
Waterhemp	26	Waterhemp	53
Woolly cupgrass	22	Lambsquarter	12
Foxtail	12	Velvetleaf	7
Velvetleaf	9	Giant ragweed	6
Giant ragweed	8	Woolly cupgrass	4
Others	23	Others	18



Leafy spurge. (Kristine Schaefer)

When surveying for the most troublesome weed in pastures or other noncrop areas, the predominant problem weed listed by 72 percent of respondents was thistle. Multiflora rose, leafy spurge, and common ragweed were listed as the most troublesome weed in pastures by 4, 3, and 2 percent of the respondents, respectively.

The five weed species presented as new or increasing problems in Iowa included leafy spurge (*Euphorbia esula*), burcucumber (*Sicyos angulatus*), garlic mustard (*Alliaria petiolata*), wild buckwheat (*Polygonum convolvulus*), and Asiatic dayflower (*Commelina communis*). Leafy spurge poses problems primarily in nontilled areas such as pastures and roadsides while burcucumber, wild buckwheat, and Asiatic dayflower can be weed problems in row crop production. Garlic mustard is a weed that inhabits woodlands and can rapidly displace native vegetation.

Regarding the distribution of the five potential invasive or problematic weed species, burcucumber was the most widely distributed weed species of those introduced at the meetings. It was reported to be present in 41 counties in Iowa by the survey participants, with the highest concentration in the east central portion of the state. Figure 1 shows the distribution of burcucumber across Iowa according to the survey results. Wild buckwheat was noted in 21 counties

(Figure 2) while Asiatic dayflower, leafy spurge, and garlic mustard were reported in 12, 11, and 9 counties, respectively (Figures 3, 4, and 5).

More information will be forthcoming on managing some of these problematic weeds. Thank you to everyone who participated in the survey. The information you provided was useful and appreciated.

Kristine Schaefer is an extension program specialist in agronomy with responsibilities in weed science and pest management and the environment. Carol Pilcher is an instructor and extension program specialist in entomology with responsibilities in pest management and the environment.

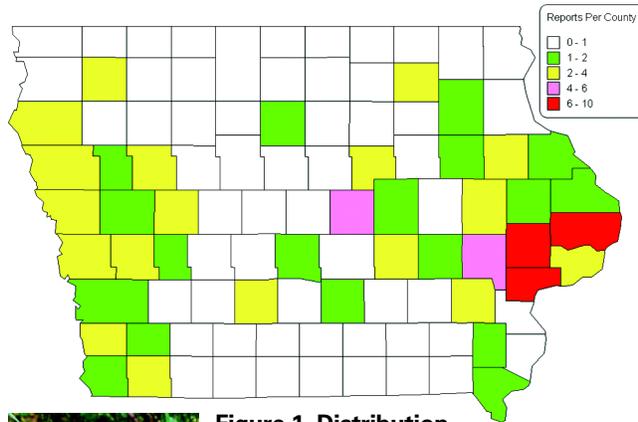


Figure 1. Distribution of burcucumber (41 counties) in Iowa in 2004.

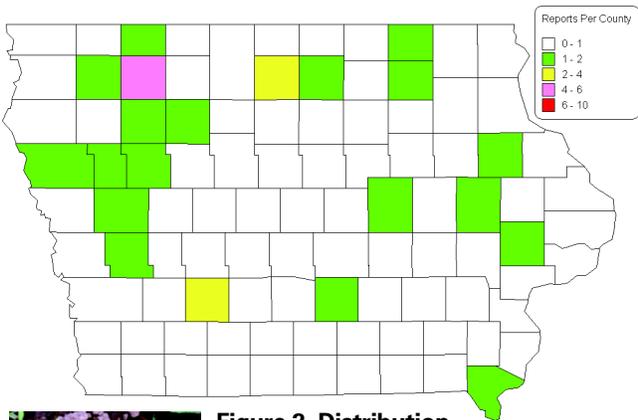


Figure 2. Distribution of wild buckwheat (21 counties) in Iowa in 2004.

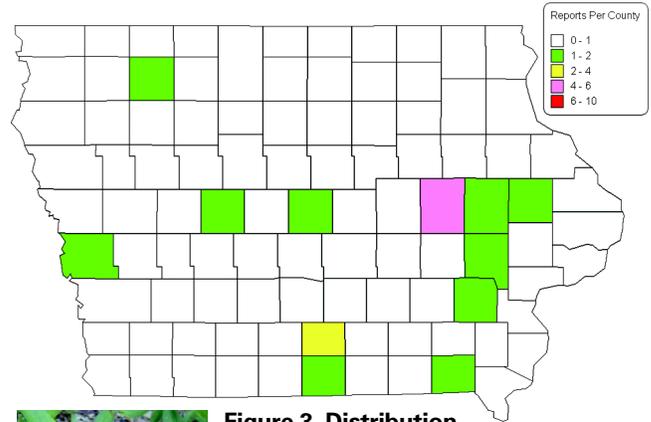


Figure 3. Distribution of Asiatic dayflower (12 counties) in Iowa in 2004.

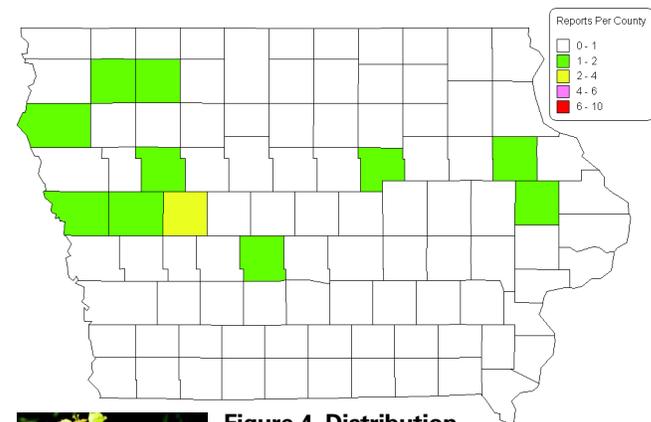


Figure 4. Distribution of leafy spurge (11 counties) in Iowa in 2004.

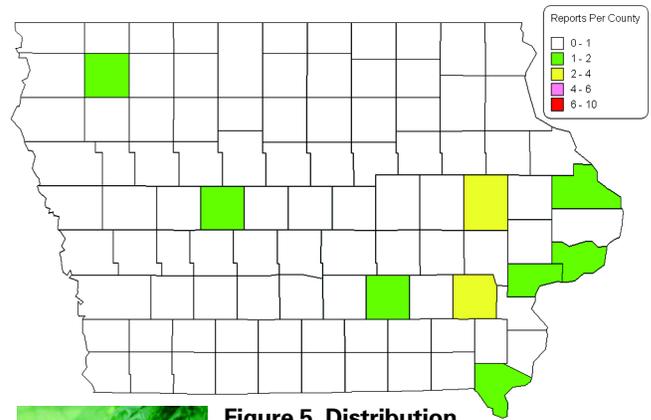


Figure 5. Distribution of garlic mustard (9 counties) in Iowa in 2004.