

Weeds of Importance to Seed Certifiers

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v.2-9-09

FOREWARD

This slide set is a work in progress. It will not contain all weeds that are important to seed certification. It is important that you review specific crop certification standards and understand which weeds present obstacles in passing field inspection, and work toward identification and control of those weeds. Hopefully, this slide set will aid you toward that end.

The initial identification of weeds is the most difficult. Once you have learned to identify a particular weed you will easily recognize it from that point on. Leaf shape, leaf attachment, flower type, seeds, type of root etc. can all be used to identify a plant. However, remember that environmental conditions may affect leaf shape or size; that herbicides can affect the way a plant grows and alter its appearance somewhat; or that the plant may not always be in flower, so vegetative characters must be relied upon.

When identifying a plant, be sure to look at the whole plant; especially when trying to use leaf morphology. If the answer is not in the older leaves, perhaps the younger leaves will hold the key. If you can't tell Shattercane from Johnsongrass without a seed head, pull the plant out of the ground and check for a rhizome (fleshy root). Do not rely on one set of characteristics to identify a plant.

If any errors are found in this presentation, please notify me at the KCIA office at 785-532-6118.

Additional Help

A great resource for weed identification and control is the K-State Research and Extension Weed Management web page. For information on herbicide choice and use, or to view photos of weeds not contained in this slide set, please visit the following site:

www.oznet.ksu.edu/weedmanagement/weedid.asp

Rye & Triticale These are prohibited crops in wheat. Their presence will lead to field rejection. (Photo of rye)



NOTE: Spike size relative to each other will change with growing conditions and variety.

Canada Wildrye*

Rye

Awnless Triticale

Awned Triticale

Awned Wheat

Awnless Wheat



*Canada Wildrye should not be confused with rye

Prohibited Crops

Field Bindweed Emerging from established rhizome



Field Bindweed Herbicide treatment or carryover can affect leaf morphology and plant growth, making identification more difficult. This is true of many weeds.



Field Bindweed Flowers can be white or pinkish and an inch or so across. There are two small bracts about midway up the flower stalk.



Field Bindweed Leaf blades attach to the petiole in a somewhat linear manner. Large leaves can droop, giving a false impression of an angular attachment.



Hedge Bindweed Generally, not always, will have pointed leaf tips and angular lobes. Pointy field bindweed and rounded hedge bindweed leaves have been seen. Viewing leaves along the vine will help with identification. Hedge flowers are larger and without mid-flower stalk bracts. Leaf angle to petiole (leaf stalk) is often helpful.



Hedge Bindweed Leaf blades tend to be attached to the petiole at an angle. Field bindweed leaf blades are attached in-line to the petiole. This can be used as a aid to identification when leaf morphology otherwise makes identification difficult.



Hedge Bindweed Re-growth from rhizome. This is one of those times when petiole to leaf attachment angle may help in identification.





Hedge Bindweed

Field Bindweed

Note that in both plants the leaves are attached in alternate manner,
NOT oppositely attached as in Honeyvine milkweed.

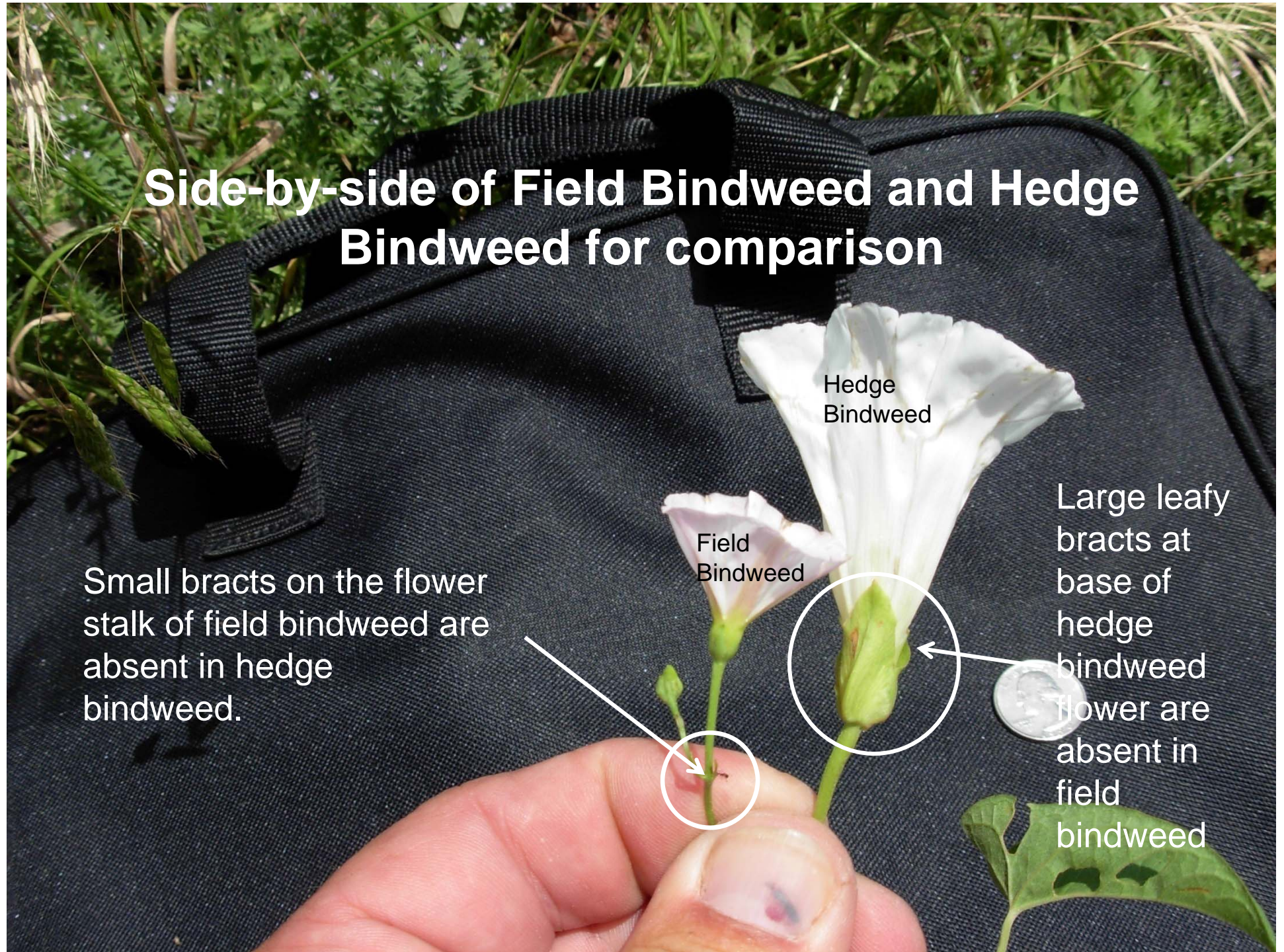
Side-by-side of Field Bindweed and Hedge Bindweed for comparison

Hedge Bindweed

Field Bindweed

Small bracts on the flower stalk of field bindweed are absent in hedge bindweed.

Large leafy bracts at base of hedge bindweed flower are absent in field bindweed



Honeyvine Milkweed A common weed found in wheat fields.
It should not be confused with prohibited or objectionable vines.



Honeyvine Milkweed The leaves attach to the vine across from each other (opposite) whereas the bindweeds and buckwheat leaves are attached in alternate fashion.



Wild Buckwheat A vine that will climb or grow along the ground as conditions permit.



Wild Buckwheat



Wild Buckwheat Younger stems have a membranous sheath around the point of attachment of the leaf to the stem. This is an ocrea. Leaves are alternately attached to the main stem.



Hoary Cress At this stage it might be mistaken at first glance for a weed such as pennycress, or perhaps a mustard. However, it will have a rhizome, and the others will not. As the plants mature and flower they are distinctly different morphologically.



Hoary Cress Has a rhizome, or underground stem from which new plants arise. By carefully pulling this weed, the rhizome is easily distinguished from the tap root of other broadleaf weeds which may appear similar to the casual observer.



Hoary Cress In flower



Pennycress



Pennycress Mature plant



Bur Ragweed (aka woolly leaf bursage) Looks like a ragweed with a covering of white hairs.



Bur Ragweed Close-up of hairy lower surface. The lower surface of the leaf is silvery pubescent (hairy) while the upper surface may be hairy to nearly hairless.



Bur Ragweed In wheat



Bur Ragweed



Wild Garlic Wild onion appears similar but has flatter stems compared to garlic's rounder stems. Both plants when crushed, give off a characteristic garlicky odor.



Curled Dock



Curled Dock



Oops, field bindweed

Musk Thistle



Musk Thistle



Jointed Goatgrass



Jointed Goatgrass Objectionable weed. If found during inspection the seed must be conditioned using secondary equipment (length grader or gravity grader) in addition to the air/screen cleaner.



Downy Brome





Cheat Note the erect spikelets.

Japanese Brome and Chess (not shown) will have drooping spikelets that are more cylindrical, and pubescence (hair) on the upper leaf sheaths whereas cheat will not.

Johnsongrass Similar looking to Sorghum alnum, which are both perennial sorghums, and prohibited weeds.



Johnsongrass

Johnsongrass Both Johnsongrass and Sorghum alnum have rhizomes. Rhizomes are fleshy underground stems that give rise to new plants.

