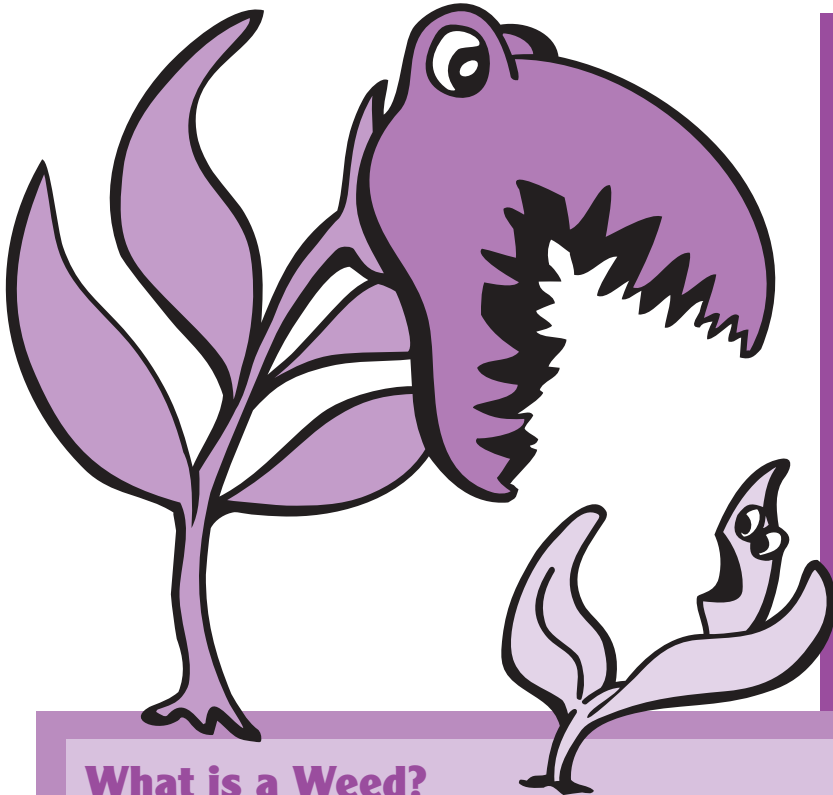


NORTH DAKOTA Ag Mag

A Magazine about Agriculture for North Dakota Students

North Dakota
Agriculture
in the
Classroom



Weeds, weeds, weeds!

They grow in gardens, crop fields and pastures; along roadsides; and by rivers and lakes. They grow in all shapes, sizes and colors.

Some people define a weed as any plant growing where it is not wanted, such as a dandelion in a lawn, field bindweed in a wheat field or musk thistle in a pasture.

What is a Weed?

Write a W in the box for the plants that typically are considered weeds and an N for the plants that typically aren't weeds.



North Dakota Weeds

Weeds also can be defined by law. Noxious weeds are specifically named weeds that are especially harmful to people's health, crops, livestock, land or other property. North Dakota law says that every person in charge of land in the state must control or eradicate the state's 12 noxious weeds and the weeds on their county noxious weed list.

Match the description of the noxious weed to its picture.

1 Field bindweed - also called creeping jenny because it 'creeps' and vines out around other plants, leaves are arrowhead-shaped, vine produces bell-shaped white or pink flowers

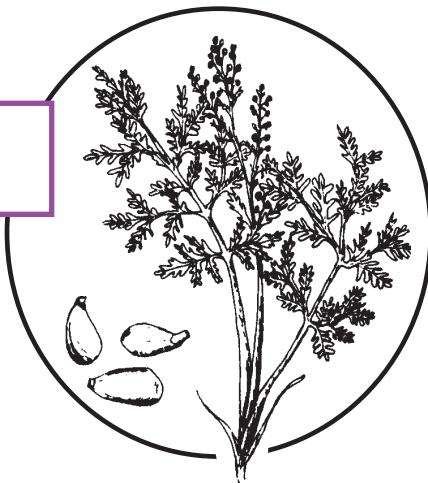
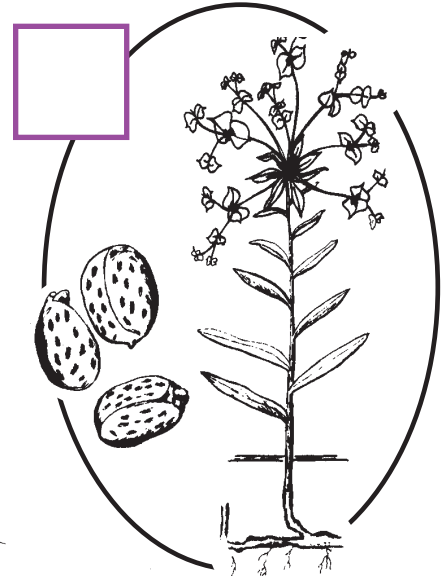
2 Leafy spurge - pale green stem has thick clusters of leaves surrounding it, leaves are narrow and alternate on the stem, many yellowish-green clusters of small flowers are on the stem ends, 3 grayish brown, oblong, smooth seeds in each pod; crown (top) of plant has several stems

3 Saltcedar - a shrub or small tree that can grow 5-30 feet tall, branches out with many small gray-green flat leaves, pink or white flowers cluster on the end of branches, each tiny seed has a "bristle" to help it move

4 Musk thistle - sharp spines on its long, thick stalk; can grow to 6 feet tall; large purple to pink flower on top of the single stalk is usually bent to the side; sharp brown bracts that resemble a pine cone

5 Canada thistle - can grow up to 4 feet tall, has several branching flowers that grow from the stalk, prickly leaves with spiny edges

6 Absinth wormwood - light green leaves that are divided 2-3 times, leaves and stems covered with fine silky hairs, numerous heads on each stalk produce many tiny flowers, has small flat seeds



Knapweeds have bracts, which are specialized leaves at the base of the flower. Hint: all four knapweeds are on this page.

7 Purple loosestrife – grows 6-8 feet tall, seed capsules contain many tiny seeds, purple flowers on spikes at the ends of many stalks

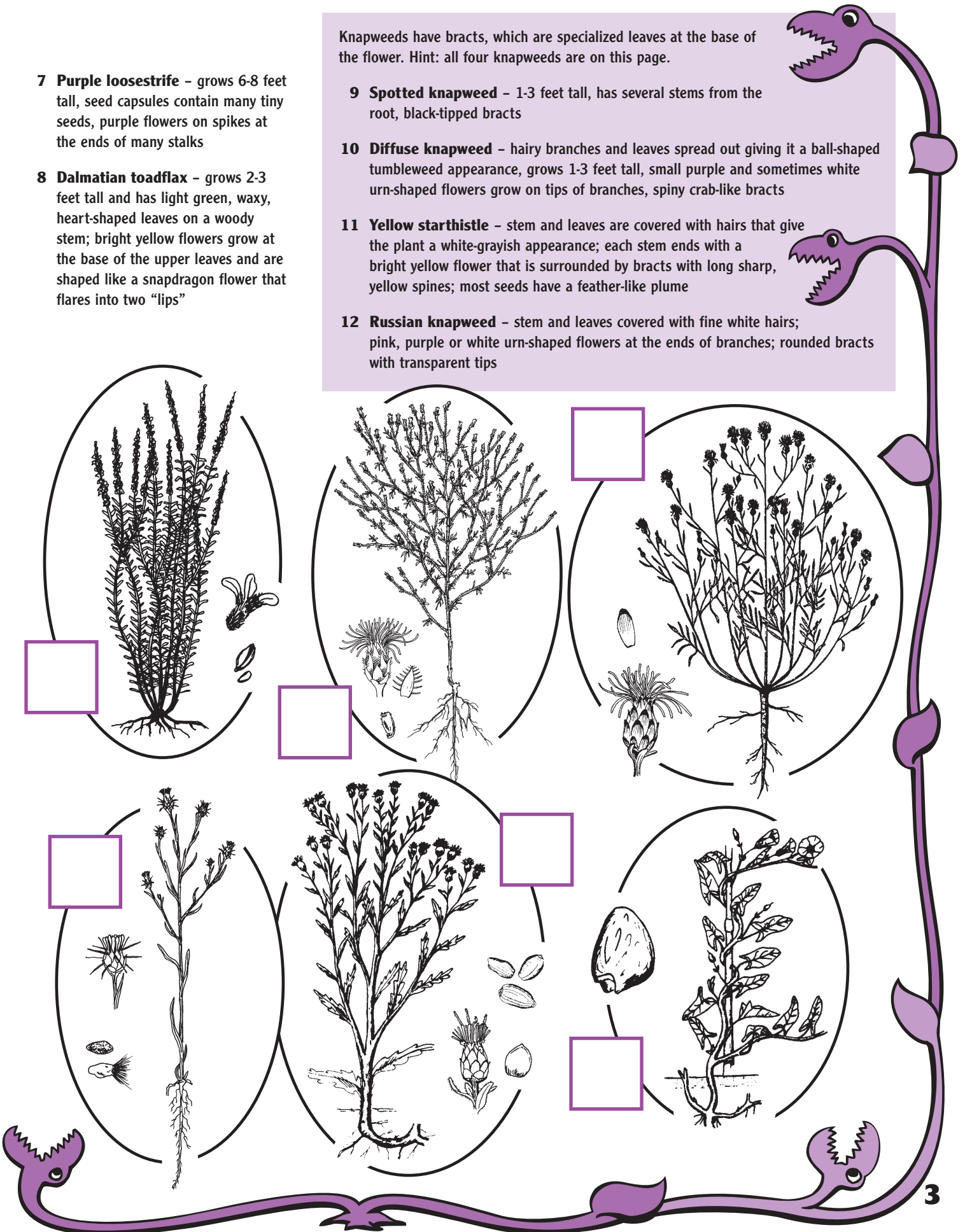
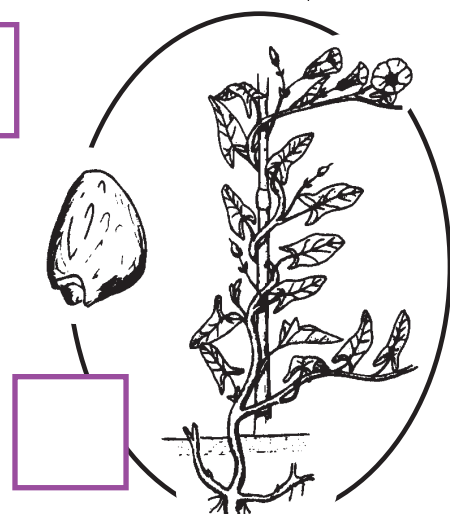
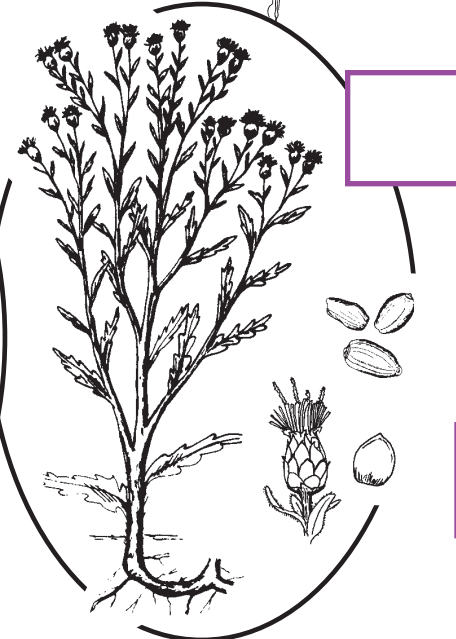
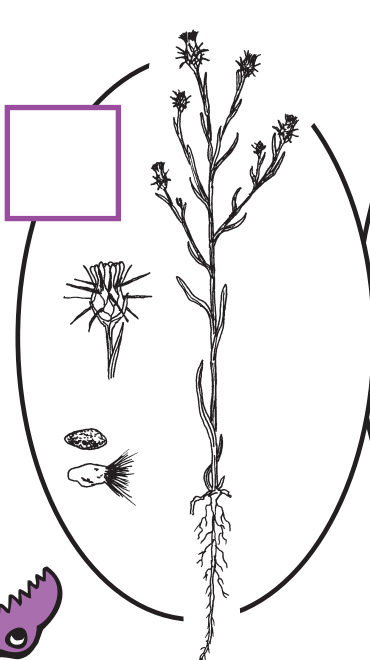
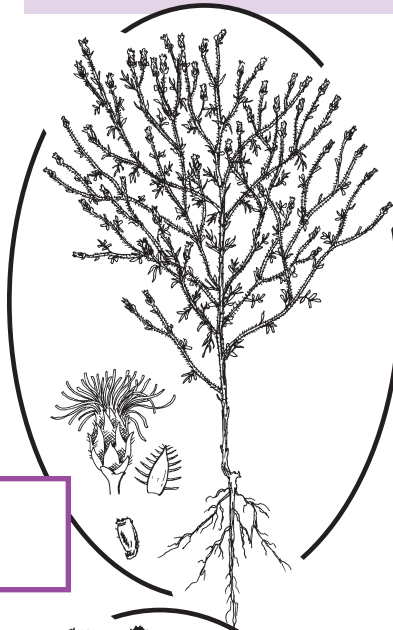
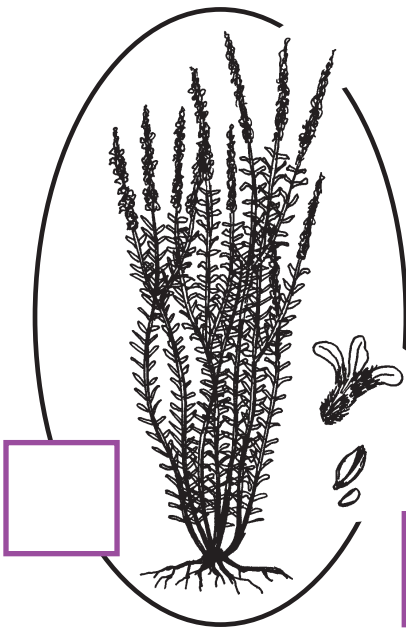
8 Dalmatian toadflax – grows 2-3 feet tall and has light green, waxy, heart-shaped leaves on a woody stem; bright yellow flowers grow at the base of the upper leaves and are shaped like a snapdragon flower that flares into two “lips”

9 Spotted knapweed – 1-3 feet tall, has several stems from the root, black-tipped bracts

10 Diffuse knapweed – hairy branches and leaves spread out giving it a ball-shaped tumbleweed appearance, grows 1-3 feet tall, small purple and sometimes white urn-shaped flowers grow on tips of branches, spiny crab-like bracts

11 Yellow starthistle – stem and leaves are covered with hairs that give the plant a white-grayish appearance; each stem ends with a bright yellow flower that is surrounded by bracts with long sharp, yellow spines; most seeds have a feather-like plume

12 Russian knapweed – stem and leaves covered with fine white hairs; pink, purple or white urn-shaped flowers at the ends of branches; rounded bracts with transparent tips



Word Search Activity

Find and circle the North Dakota noxious weeds. The words can be horizontal, vertical, backwards or crossways.

- Absinth wormwood
- Canada thistle
- Dalmatian toadflax
- Diffuse knapweed
- Field bindweed
- Leafy spurge
- Musk thistle
- Purple loosestrife
- Russian knapweed
- Saltcedar
- Spotted knapweed
- Yellow starthistle



Weeds in North Dakota

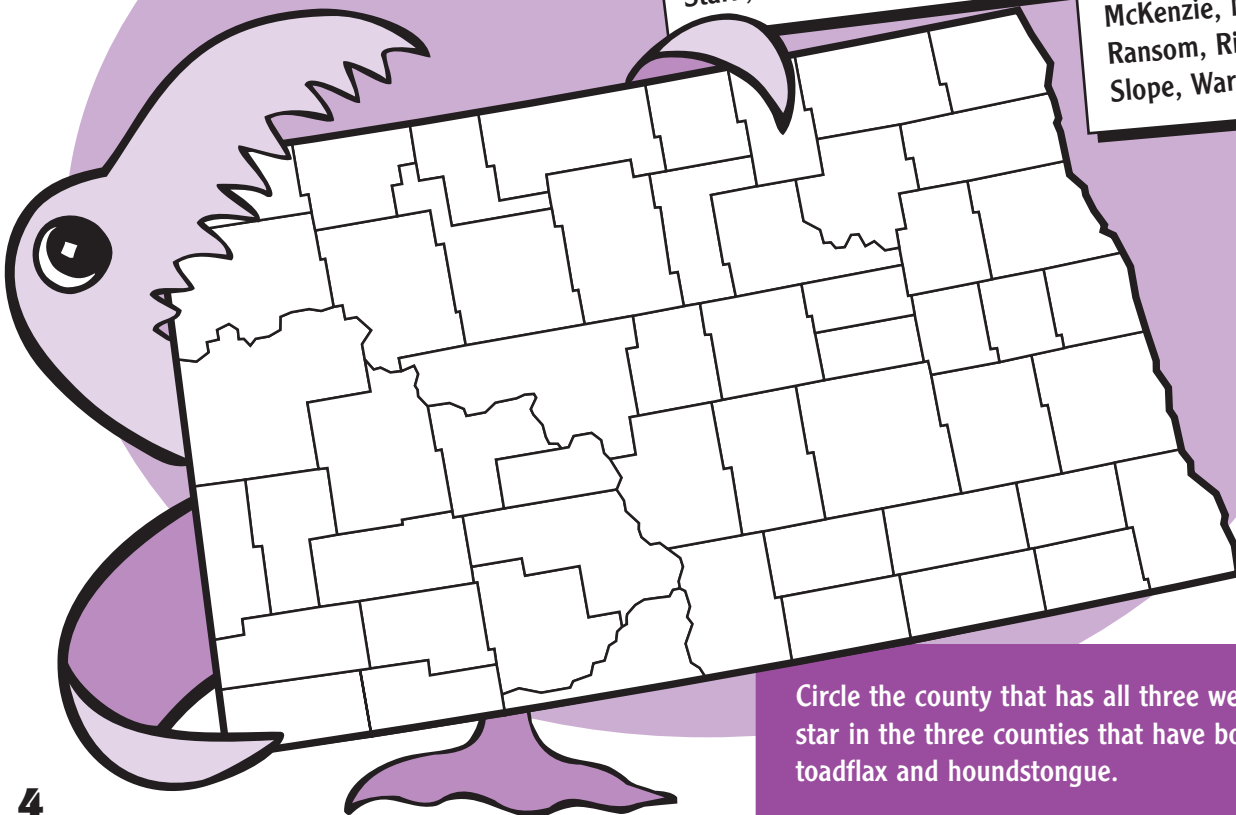
Some North Dakota counties have other weeds that are especially harmful in their county so leaders have named more noxious weeds.

Mark the counties with yellow toadflax with a Y, counties with common tansy with a T and counties with houndstongue with an H.

YELLOW TOADFLAX - Barnes, Grant, LaMoure, Logan, McIntosh, McKenzie, Mountrail, Sheridan, Stark, Ward

COMMON TANSY - Burke, Cavalier, Mountrail, Pembina, Rolette

HOUNDSTONGUE - Billings, Grant, Kidder, McKenzie, Mountrail, Ransom, Richland, Slope, Ward



Circle the county that has all three weeds. Put a star in the three counties that have both yellow toadflax and houndstongue.

Control Those Weeds!

Farmers and ranchers do not want weeds in their fields and pastures. Weeds grow rapidly and reduce crop production as well as the amount of grass in a pasture for the livestock to eat. Since weeds reduce the profitability of the land, farmers and ranchers use different methods to control them.

Mechanical weed control uses machinery, such as a mower or tiller, to get rid of the weeds. Physically pulling the weed out by hand or with a hand tool also is considered mechanical. Mechanical weed control commonly is used in gardens and flower beds where weeds are more manageable.

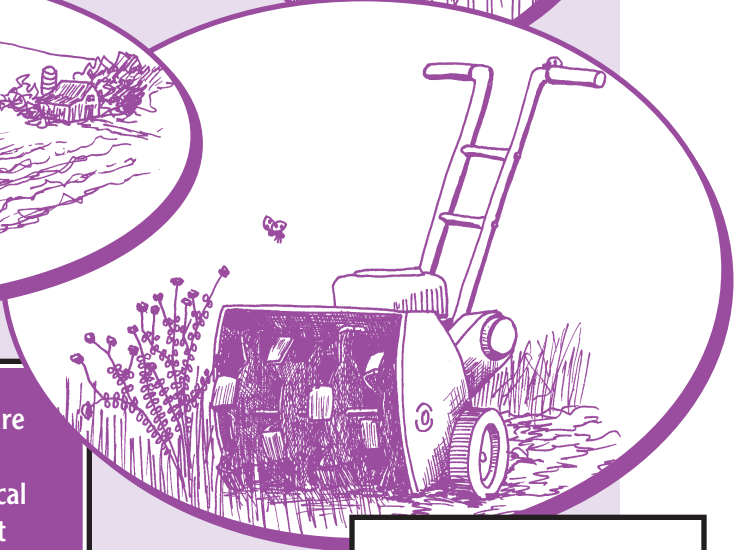
Chemical control is the most common form of weed control. Farmers and ranchers use chemicals called herbicides that are toxic to certain plants. These herbicides kill weeds that grow in fields and pastures. Herbicides are usually sprayed as a liquid on weeds with special spraying equipment.

Biological or cultural weed control is the use of insects and grazing animals to control the spread and growth of weeds. Cattle, sheep and goats will eat some types of weeds. Insects, such as certain weevils and beetles, also can be released into weedy patches. The insects live off of and eat the weeds to control them.

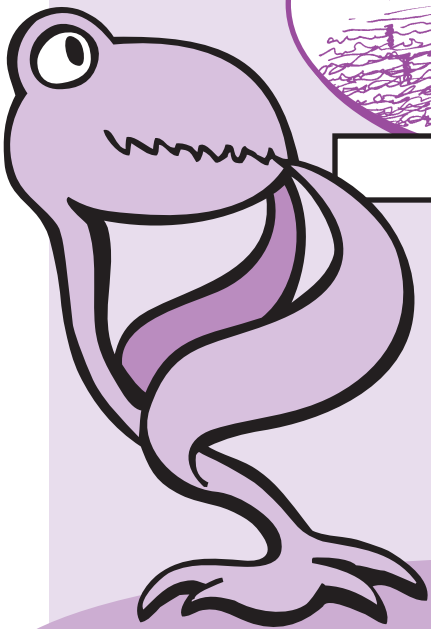
Sometimes more than one method is used to control weeds. This is called **integrated** pest management. For example, if a landowner puts beetles in a patch of weeds and also sprays or mows the weeds in the fall when the beetles are dormant and won't be harmed, the weeds may die faster.







Write which picture is a mechanical, biological, chemical or integrated pest management control method.



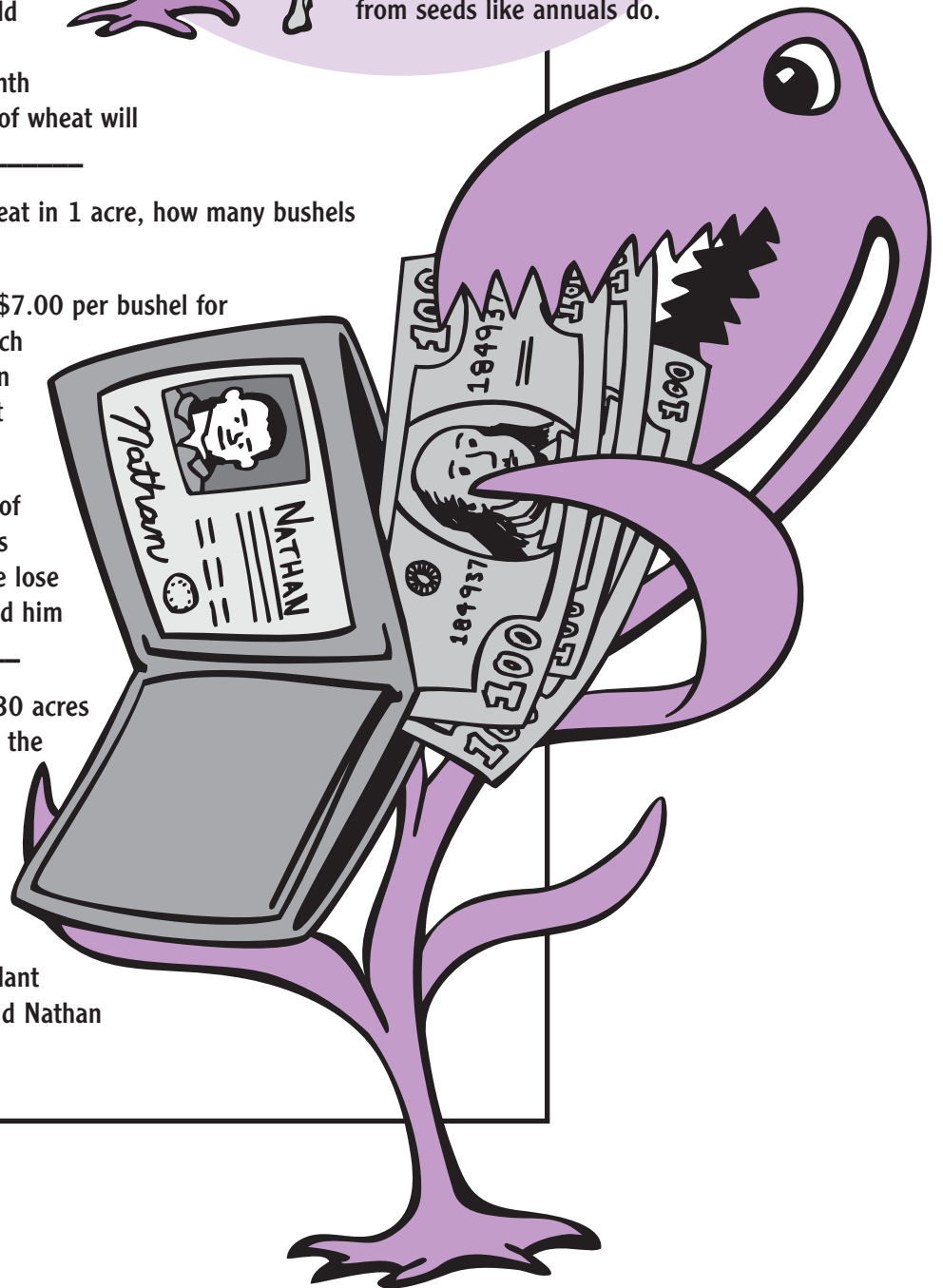
Annual, Biennial or Perennial?

Plants, including weeds, are annuals, biennials or perennials. Annuals grow quickly from seed each spring or summer and then die within a year. Biennials live for two years. Perennials are able to live from one year to the next because they have special structures, such as bulbs, tubers or woody crowns. Perennials bloom in spring to summer and then die back in the fall or winter. Each spring they come back from their special structures rather than growing from seeds like annuals do.



Math Problems

1. Nathan has a 100-acre field of wheat. He didn't spray his field to kill the weeds, so 30 acres have been taken over by absinth wormwood. How many acres of wheat will Nathan have to harvest? _____
2. If there are 47 bushels of wheat in 1 acre, how many bushels are in 70 acres? _____
3. The elevator will pay Nathan \$7.00 per bushel for his harvested wheat. How much money will Nathan make when he harvests his 70-acre wheat field? _____
4. If Nathan lost 1,410 bushels of wheat because of weeds in his field, how much money did he lose if the elevator would have paid him \$7.00 per bushel? _____
5. If Nathan wouldn't have lost 30 acres of wheat to weeds overtaking the field, how much total money would Nathan have made? _____
6. If the elevator paid Nathan \$23,030 for his wheat crop and it cost him \$15,000 to plant the crop, how much money did Nathan actually profit? _____

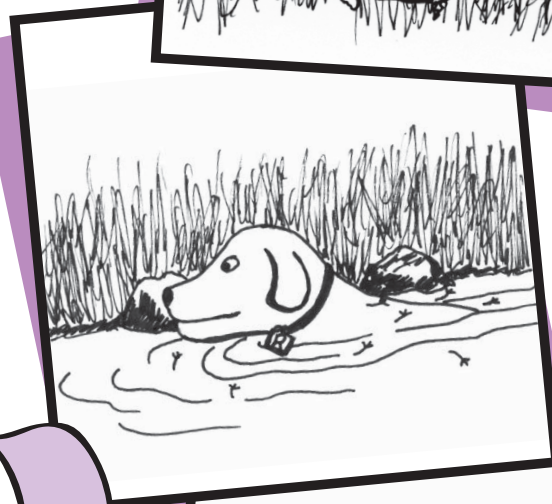


How Weeds Travel

How do weeds spread so quickly to many different areas? Weed seeds travel by wind, water or hitchhiking on an animal or person. In this story, underline the ways weed seeds travel.

Rufus is playing in a yard full of dandelions. As the wind blows, the white seeds from the dandelions drift across the yard.

Dandelion seeds cling to Rufus' long, shaggy hair. He gets warm from playing in the hot sun and jumps in the river to cool down. As Rufus jumps into the water, the dandelion seeds attached to his hair end up floating in the river. The dandelion seeds travel on the water until they reach the shore. At the shoreline, the seeds germinate, and a new patch of dandelions begins.



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Take this issue of North Dakota Ag Mag home to share what you've learned about weeds.

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