



Order in the Field

Farmers plant different crops in a field year after year. This is called "crop rotation." It helps keep the soil healthy and cuts down on the amount of pesticides that have to be used. Farmer Faye used crop rotation and planted five crops in one field over five years. Can you figure out the order in which she planted them?

- Clues:
1. The hay was planted after the wheat.
 2. The soybeans were the third crop to be planted.
 3. The oats were planted after the corn and before the soybeans.

Answer: corn, oats, soybeans, wheat, and hay

Farming Fact or Fiction?

Can you guess which of these facts are true and which ones are just plain false?

- True or False
1. Some farmers ask visitors to shower or wear plastic boots over their shoes before entering a barn.
 2. It's possible for farmers to keep track of their fields from outer space.
 3. Steep slopes and hilly land are the best places to grow crops and veggies.
 4. A farm in southwestern Ontario is building a machine that will turn cattle manure into electricity.
 5. One farmer produces enough food to feed five people.
 6. Farmers use manure from their livestock to help grow crops.
 7. Farmers have to go to school to learn how to use pesticides safely.
 8. Most farm animals in Canada are raised outdoors.

Answers: 1. True. This helps keep germs and sickness out of the barn, so herds or flocks can stay healthy. 2. True. There are global positioning systems (GPS) satellites that orbit the Earth and can beam info to a farmer. The farmer uses this info to manage his or her fields. For instance, instead of spreading fertilizer over every field, a farmer can look at the data from the satellite and place fertilizer only on fields where it's needed. This helps save energy, fertilizer, and reduces the risk of pollution. 3. False. Slopes and hills make a great pasture for livestock because the thick grass can hold the soil and keep it from running downhill or eroding. Veggies and crops are grown on flatland to help reduce soil erosion. 4. True. For more information on this, check out www.agcare.org and click on "The Real Dirt on Farming". 5. False. A farmer produces enough to feed 120 people! 6. True. Manure is put on fields as a fertilizer to help the crops flourish. 7. True. Farmers must take the Grower Pesticide Safety Course before they're allowed to buy and use pesticides. 8. False. Sheep, horses, and beef cattle usually live outside. But most other farm animals, like chickens and pigs, live in barns to keep them comfortable in bad weather and safe from predators.

All in a Day's Work

Have a look at Farmer Phil's chores for the day. Can you match up each of his tasks with the reason why he's doing it?

- example
- | | |
|---|--|
| 1. Catch bugs in orchard with bug net | a. He needs to keep up-to-date on how to care for livestock |
| 2. Put ear tags on cattle | b. Now Farmer Phil knows exactly how much fertilizer is being applied to his fields |
| 3. Begin work on new shed | c. This will keep cattle out of the creek and protect the water |
| 4. Get soil sample from field | d. Now Farmer Phil can keep track of every single cow on the farm |
| 5. Water crops in the morning | e. This will let Farmer Phil know if there are any problems in the building |
| 6. Set up fence near stream | f. This will help him see if the soil is healthy and if there are enough nutrients in it to grow his next crop |
| 7. Sign up for veterinary medicine course | g. This will make sure the trees are pollinated, so that they will grow apples |
| 8. Set up alarm system in barn | h. He needs a place to store pesticides safely |
| 9. Have beehives placed in orchard | i. He needs to count and identify bugs to see if there are too many bad bugs around |
| 10. Adjust the fertilizer spreader | j. This will ensure he gets the most out of every drop of water since it's cooler at daybreak |

Answers: 1. i, 2. d, 3. h, 4. f, 5. j, 6. c, 7. a, 8. e, 9. g, 10. b



Math at the Market

When it comes to fresh and tasty produce, it's hard to beat a farmer's market. It's also one of the few places you can come face-to-face with a farmer. Farmer Kristin is trying to rearrange her market. Can you lend a hand? She has two bins of McIntosh apples. One bin has 75 apples in it. The other has 31. How many apples does Farmer Kristin have to move from the first bin to the second so that each bin has the same number of apples?

Answer: 22

In the Wildlife Zone

To protect streams, farmers create "buffer zones" around them. A buffer zone is an area of grass, shrubs, and trees that's left to grow wild. These areas keep farm animals away from streams and make sure soil, pesticides, and fertilizers don't get washed into the water. As well as preserving the stream and its water, these buffer zones provide a great habitat for wildlife. Take the Phillips' farm, for instance. Twenty-six wild animals make their home in one of the farm's buffer zones. Can you figure out how many of each animal lives there?

- Hints:
1. There are the same number of sparrow hawks as there are ducks.
 2. There are twice as many deer as coyotes.
 3. There are two more frogs than groundhogs.
 4. There are half as many groundhogs as ducks.
 5. There are five frogs in the buffer zone.



Farmland Find It

It's time to exercise those eyeballs! Find these things in the poster on the other side of this page:

two cows that are drinking, a milk truck, a greenhouse, two swimmers, a ladybug, someone fishing, a duck family, kids playing ball, two wild turkeys, a picnicking pair, a clothesline, fuel storage, a farmer's market, someone planting trees, a turtle, six mailboxes, three Canada geese, six wells, and someone picking apples.

- Then look for:
- ✓ a buffer strip near a creek. It keeps soil from eroding and provides a home for wildlife. (see "In the Wildlife Zone" puzzle for more info on buffer strips)
 - ✓ a farmer with a bug net. He's looking to see how many "bad bugs" are around.
 - ✓ a farmer monitoring soil. She's checking to see if her soil is healthy and if there are enough nutrients in the soil to grow her next crop.
 - ✓ a satellite. Satellites help farmers map their fields, and they use the info from the orbiting satellite to manage their farmland.



Answer: 6 ducks, 6 sparrow hawks, 5 frogs, 4 deer, 3 groundhogs, 2 coyotes

Do the Switcheroo

Most farms get their water from wells. Farmers work hard to make sure their wells are safe. Can you make a well safe? It's not as tough as you might think! Just change the word "well" into the word "safe" in five steps. You can only change one letter at a time. Dive in!

W E L L
_ _ _ _
_ _ _ _
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S A F E

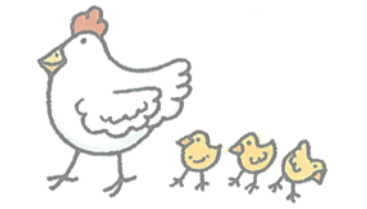
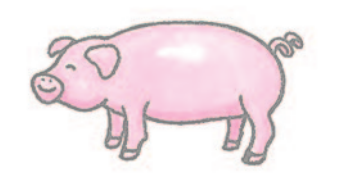


One possible answer: well, wall, fall, tale, safe, safe

Size Them Up

Put your animal smarts to the test. Which creature do you think is heavier?

1. cat **or** turkey
2. sheep **or** emu
3. cheetah **or** pig
4. chicken **or** loon
5. quarter horse **or** moose
6. beef cow **or** grizzly bear
7. veal calf **or** St. Bernard dog

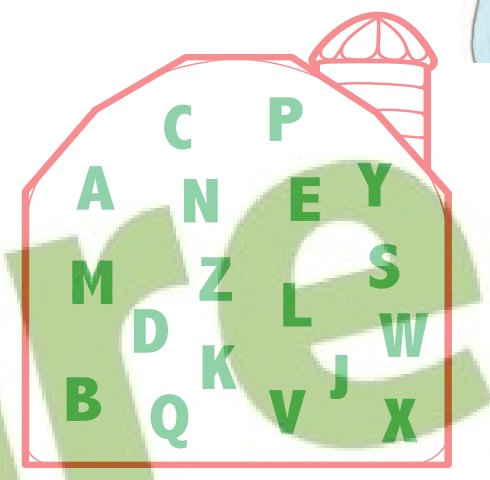


Answers: 1. turkey, 2. sheep, 3. pig, 4. loon, 5. moose, 6. grizzly bear, 7. veal calf

Farms, Farms, and More Farms

If you think all farms are alike, you're in for a surprise. There are lots of different kinds of farms out there - from dairy to chicken to beef to vegetable. We've given you 18 out of 26 letters of the alphabet. First, figure out which eight letters are missing. Then rearrange them to spell out two more types of Canadian farms.

_____ and _____ farms



Answers: fruit, hog

An A-Mazing Farm

Farmers take the handling and storage of manure very seriously. They have to make sure that it won't get into any rivers or streams. They also want to be certain the smell doesn't bother their neighbours. Farmer Amy needs your help getting manure from the pig barn to the manure storage pit. Are you up for the job?



Crack the Veggie Code

More and more veggies are grown in greenhouses. These glass buildings help farmers grow crops during all four seasons - which means more fresh goodies for us! Can you figure out the four main veggies that are grown in Canadian greenhouses? The names of the veggies are written in code below. We've used a number to represent each letter of the alphabet, so 1=A and 26=Z. Can you crack the code?

- a. 20 15 13 1 20 15 5 19
b. 3 21 3 21 13 2 5 18
c. 12 5 20 20 21 3 5
d. 2 5 12 12 16 5 16 16 5 18



Answers: a. tomatoes, b. cucumber, c. lettuce, d. bell pepper

All Mixed Up

Today's farmers only use pesticide when it's absolutely necessary to protect their crops. The rest of the time, they find other ways to control disease and pests. For instance, they may set up insect barriers or traps to control the pests. Or they might rely on "good bugs," like ladybugs, to gobble up "bad bugs". All this helps bring tasty - and safe - fruit and veggies to our tables! Below are the scrambled names of just a few of the foods that Canadian farmers grow. Can you unscramble each one?

1. rebbliresue
2. norc
3. ttoaseop
4. speehca
5. reseirhc
6. psaelp
7. aensb
8. mtesotao
9. wirtsreabsre
10. tacsror

Answers: 1. blueberries, 2. corn, 3. potatoes, 4. peaches, 5. cherries, 6. apples, 7. beans, 8. tomatoes, 9. strawberries, 10. carrots

For more on farming visit: www.farmfoodcare.org

