




## From Grains to What?

With proper nutrients and care, these plants produce grains that are used to make many products we use each day. Can you match the products to the crop or crops that provide them?

- |               |    |   |                                      |
|---------------|----|---|--------------------------------------|
| cereal        | a. |  | <b>Corn</b><br>1 acre=130 bushels    |
| nachos        | b. |   |                                      |
| chocolate     | c. |   |                                      |
| bread         | d. |   |                                      |
| vegetable oil | e. |  | <b>Wheat</b><br>1 acre=65 bushels    |
| pasta         | f. |   |                                      |
| soda          | g. |   |                                      |
| paper         | h. |   |                                      |
| fuel          | i. |  | <b>Soybeans</b><br>1 acre=44 bushels |
| ink           | j. |   |                                      |
| matches       | k. |   |                                      |
| candles       | l. |   |                                      |
| toothpaste    | m. |   |                                      |
| stamps        | n. |   |                                      |

## Grain Math

1. One bushel of corn sweetens 400 cans of soda. How many six-packs of soda can be sweetened with one acre of corn?

2. One bushel of soybeans can make 1,872 soy crayons. How many eight-count boxes of crayons can be made from one acre of soybeans?

3. One bushel of wheat makes 90 one-pound loaves of bread. How many loaves of bread can one acre produce?



# Positively 4 Kids!

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Every day we benefit from grain crops, like corn, wheat, and soybeans. However, it takes lots of work to provide us with products from grains. It takes farmers preparing the land, planting the seeds, controlling the weeds, protecting plants from disease and insects, and ensuring the crops have the proper nutrients they need to grow strong and healthy.

## Search Against the Grain

First, find the 14 words in **bold green** print throughout the inside of this reader in the word search puzzle below.

E	R	P	N	T	W	H	E	A	T
M	I	H	U	L	I	Z	N	E	R
I	P	O	T	A	S	S	I	U	M
N	R	S	R	E	F	P	T	L	S
E	A	P	I	C	E	E	R	S	U
R	N	H	E	U	R	C	O	R	N
A	W	O	N	T	T	R	G	O	L
L	A	R	T	I	I	E	E	O	I
S	T	O	S	N	L	T	N	T	G
S	E	U	S	O	I	L	U	S	H
S	R	S	E	D	Z	B	Y	P	T
L	S	O	Y	B	E	A	N	S	A
N	T	S	F	A	R	M	E	R	S

Then, fill in the blanks with the remaining letters from the word search and discover the purpose of fertilizer.

F									

## Win This Book

[www.pfb.com/4Kids](http://www.pfb.com/4Kids)

- Enter the free book drawing
- Find answers to all activities
- Answer the P4K! Ag Question
- Learn more about grains

## Last Issue Winner

**Patricia Fink**  
Washington County

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# Growing Grains

## Sun

Plants need energy from **sunlight** to convert water and nutrients into sugars they can use as food.

## Fertilizer



When the soil isn't able to fully provide the proper nutrients a plant needs, **farmers** will apply **fertilizer** with those nutrients to ensure the plant grows and develops into a healthy plant.

## N deficiency

Light green leaves with yellowed older leaves can mean a nitrogen (N) deficiency in **wheat** plants.

## Potassium (K)

Plants need **potassium** (K) to protect against diseases and develop good fruit and seeds.

## Soil

Plants need the **nutrients** and minerals naturally found in **soil** to grow strong and healthy.

## Water

Plants constantly need the right amount of **water**...not too much and not too little.

## K deficiency

Leaves that are yellowing on the edges can indicate a **corn** plant has a potassium (K) deficiency.

## Phosphorous (P)

Plants need **phosphorous** (P) to grow strong and healthy roots.

## Nitrogen (N)

Plants need **nitrogen** (N) to be green and healthy.

## P deficiency

Poorly developed or weak roots are a sign that **soybeans** may be lacking enough phosphorous (P).

## Roots

Plants absorb water, as well as needed nutrients and **minerals**, through their **roots**.

