

BOOK 1

**GRADE
K,1**



FUN WITH THE PLANT NUTRIENT TEAM

AN ACTIVITY BOOK DEVELOPED FOR
KINDERGARTEN AND FIRST GRADE.

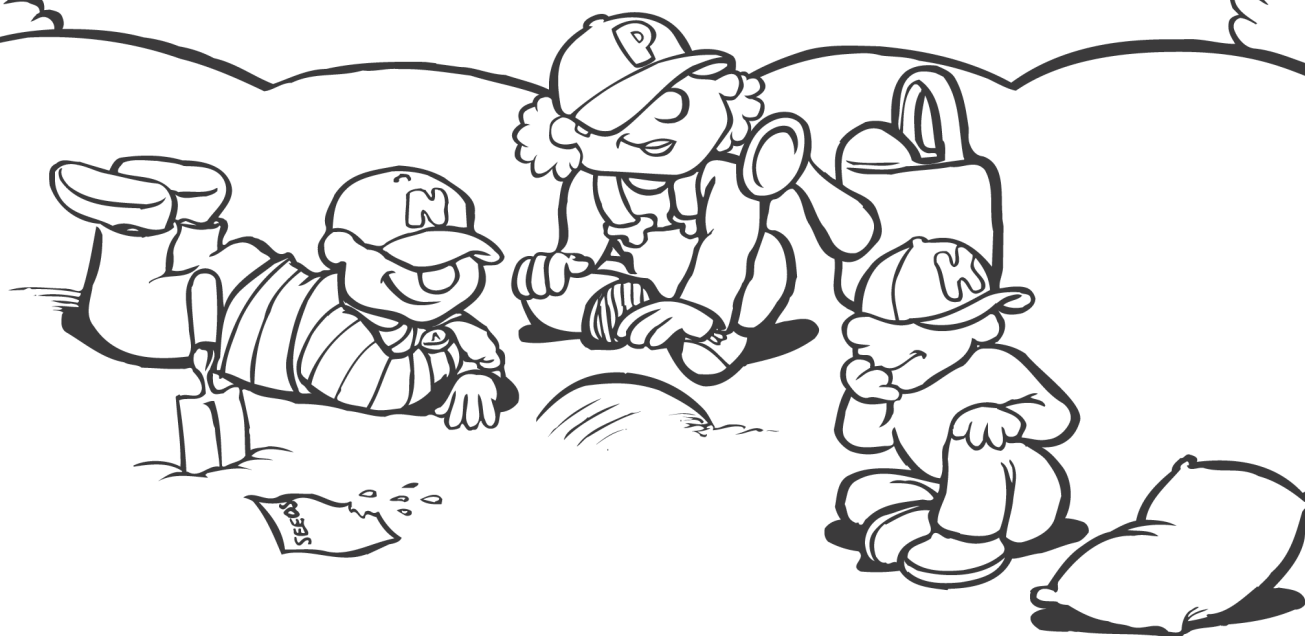
ILLUSTRATED BY
GREG CRAVENS

Humans, animals, and plants all depend on the soil for life. Without soil, we could not grow the food we eat. There would be no place to hold and store the water we drink. There would be no place for us to build our houses, roads, schools and cities.

Caring for the soil is important to our lives. As the world population increases and more food is needed to feed all the people, knowing what is best for the soil, what is best for the plants, and what is best for the world around us is a necessary part of everyone's education.

Just like people, plants require nutrients to be healthy. When some nutrients are missing, plants do not grow well. Farmers work hard to add just what is needed to grow their crops.

Our **Fun With The Plant Nutrient Team** activity book was written to help children better understand what the soil needs to be healthy in order to provide us with healthy foods.



This publication is produced by the International Plant Nutrition Institute (IPNI). The mission of IPNI is to develop and promote scientific information about the responsible management of plant nutrition for the benefit of the human family. The Institute's programs are conducted by a staff of Ph.D. scientists in various regions, plus other support personnel.

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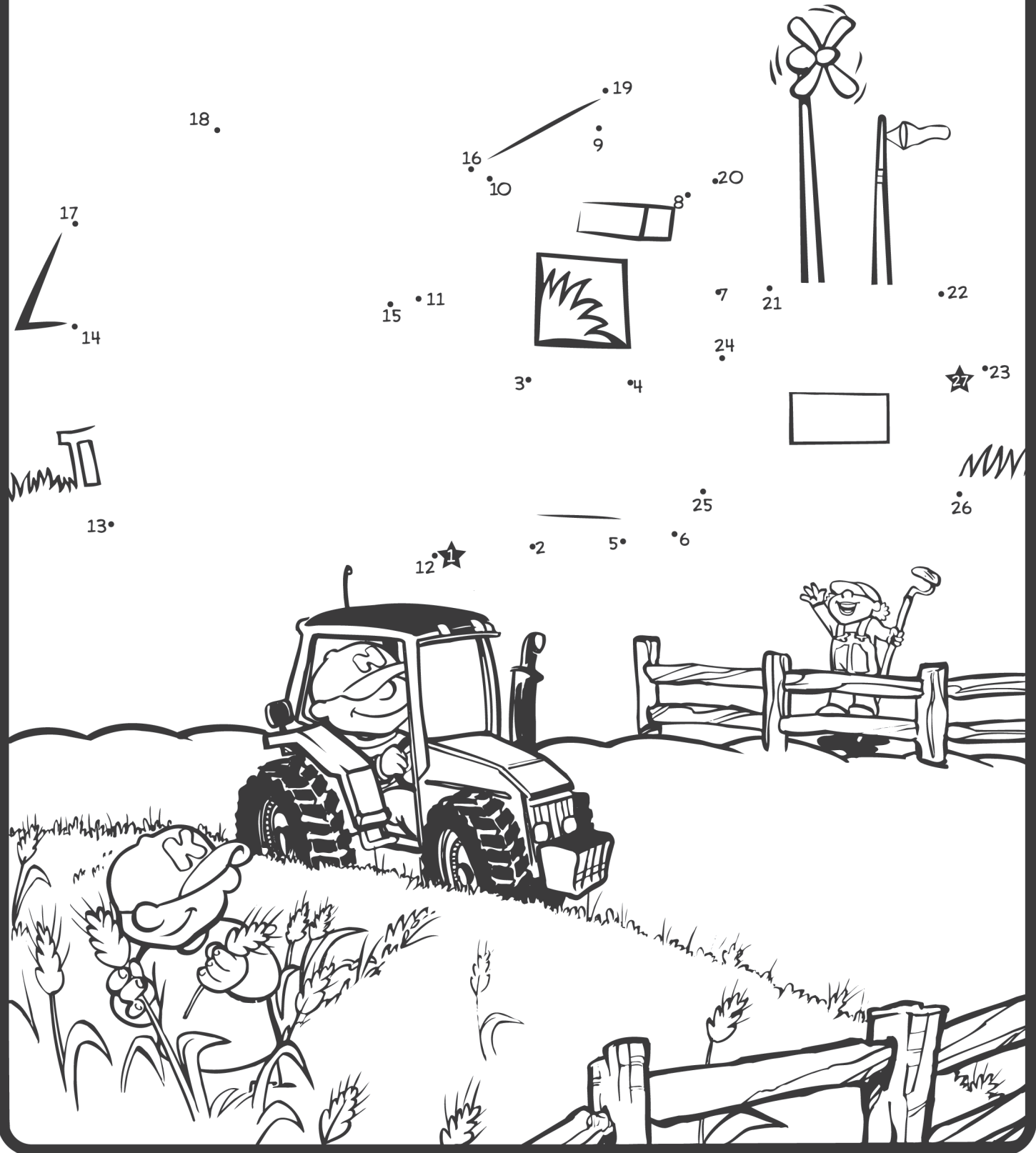
PLANT NUTRIENT TEAM

MY NAME IS
NITROGEN
AND MY HAT
HAS A LETTER
'N'!

AND I'M
POTASSIUM, I USE
THE LETTER 'K' FROM
THE LATIN WORD
'KALIUM'!

THEY CALL ME
PHOSPHORUS,
AND MY HAT
HAS A LARGE
LETTER 'P'!

NUTRIENTS LIKE US HELP FARMERS GROW HEALTHY PLANTS!



CIRCLE THE RIGHT ANSWERS

PLANTS NEED:



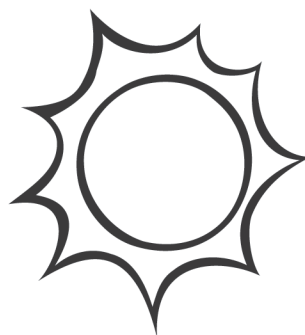
MILK

LIGHT

WATER



TOYS



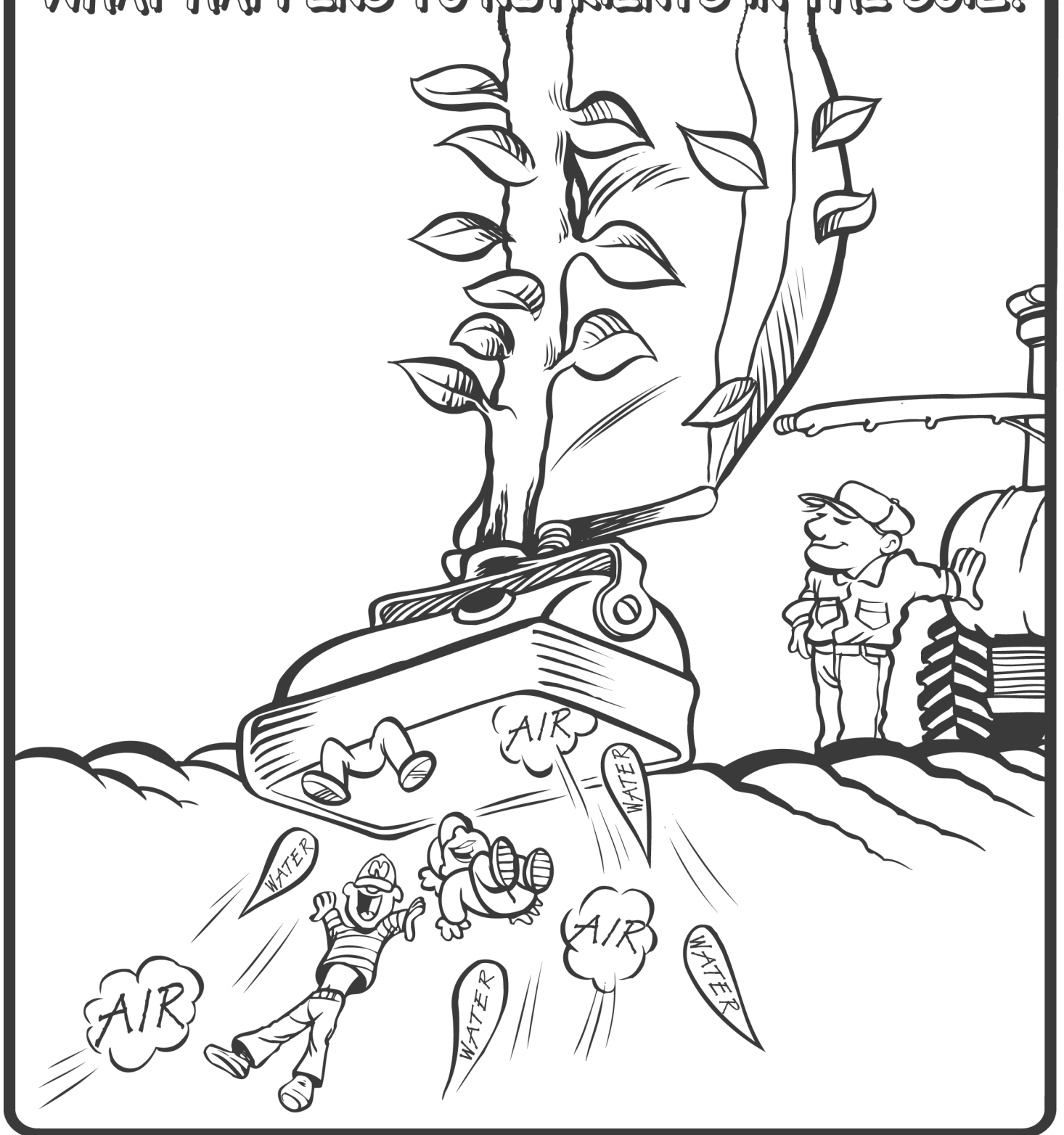
NUTRIENTS

LITTLE
SWEATERS



PLANT NUTRIENTS ARE IMPORTANT
FOR PLANTS TO GROW. PLANTS GET
NUTRIENTS FROM SOIL.

WHAT HAPPENS TO NUTRIENTS IN THE SOIL?

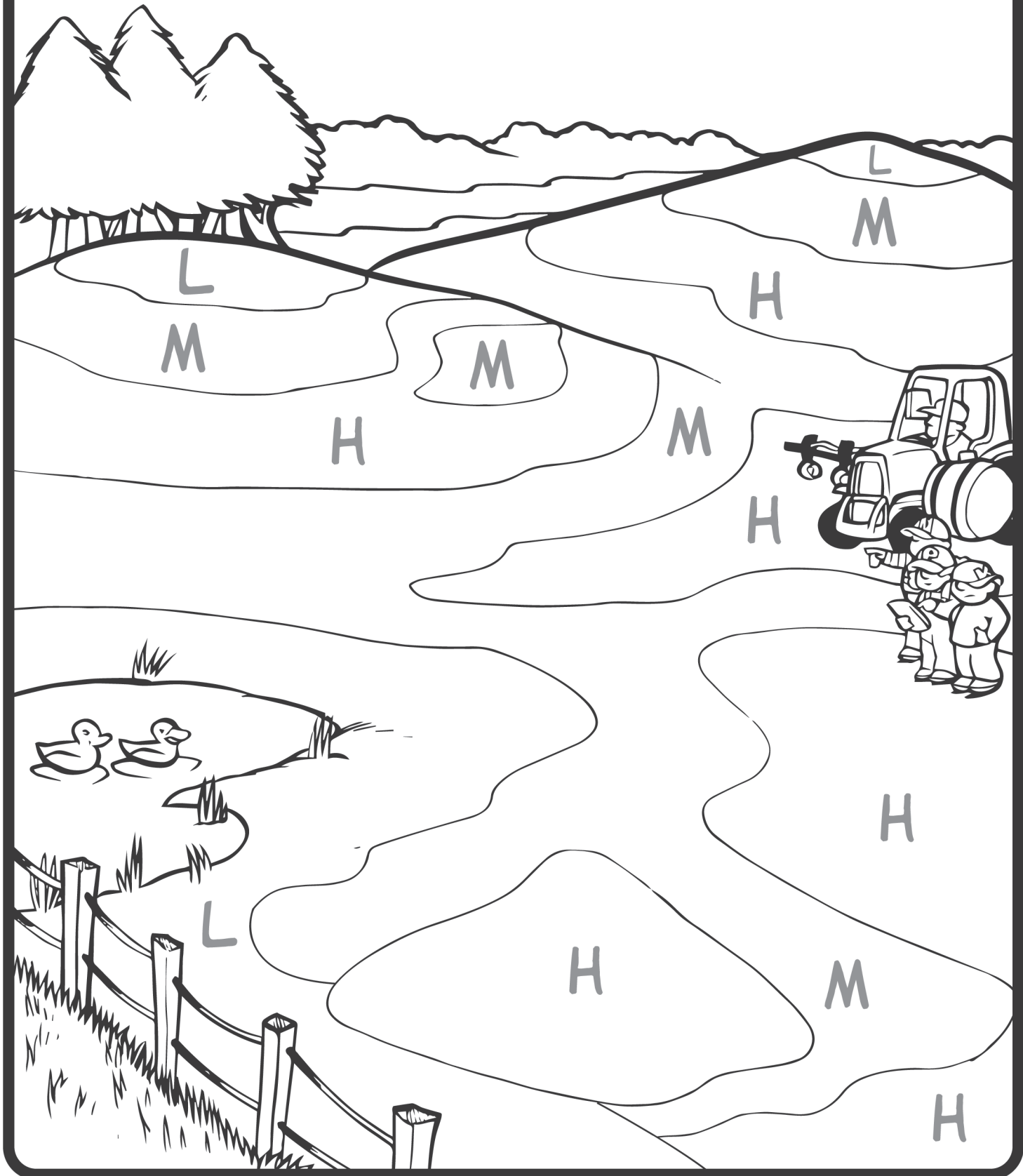


AS PLANTS GROW, THEIR ROOTS TAKE UP NUTRIENTS FROM THE SOIL. THAT'S WHY FARMERS NEED TO ADD MORE NUTRIENTS BACK INTO THE SOIL.

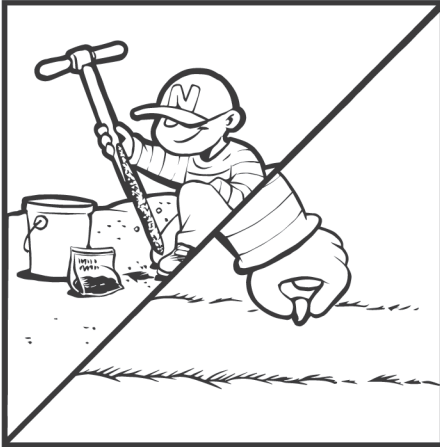
FARMERS USE THE BEST TECHNOLOGY TO
HELP THEM PUT THE RIGHT AMOUNT OF
NUTRIENT IN THE RIGHT PLACE.



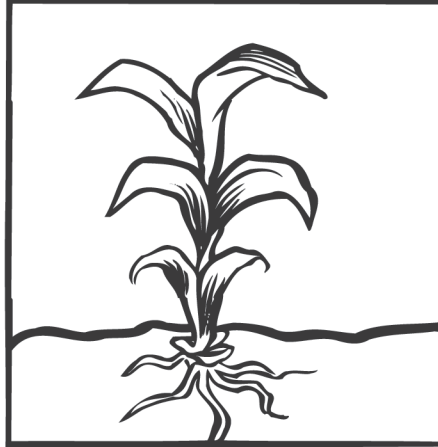
DIFFERENT AREAS OF THE FARMER'S FIELD GET DIFFERENT AMOUNTS OF FERTILIZER.
COLOR THE FIELDS BELOW. "H" IS FOR HIGH AMOUNTS OF FERTILIZER.
"M" IS FOR MEDIUM AMOUNTS OF FERTILIZER.
"L" IS FOR AREAS THAT ONLY NEED LOW AMOUNTS OF FERTILIZER.



FARMERS TAKE CARE OF THEIR LAND THAT GROWS OUR FOOD.



SOILS ARE TESTED AND
SEEDS ARE PLANTED



THE SEED
BECOMES A PLANT



FARMERS LOOK
AFTER THEIR CROPS



FOOD GROWS FROM
THE PLANT

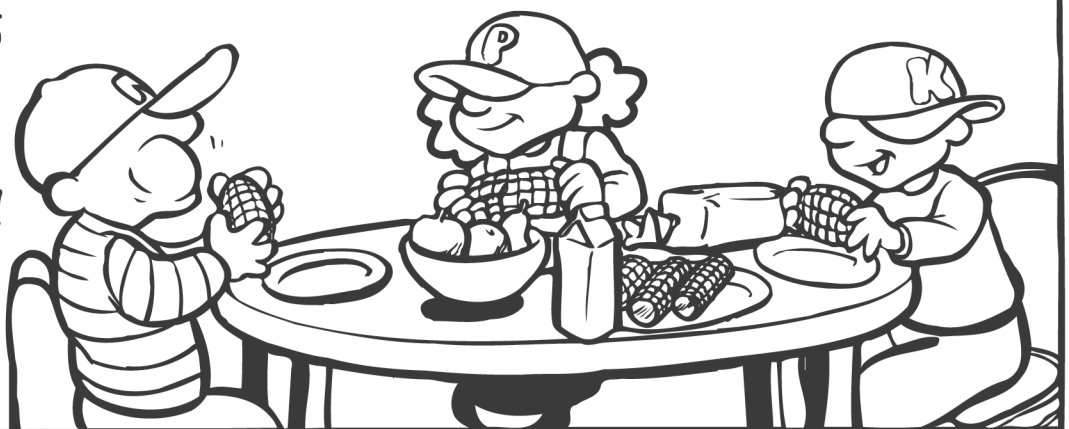


THE PLANTS ARE
HARVESTED

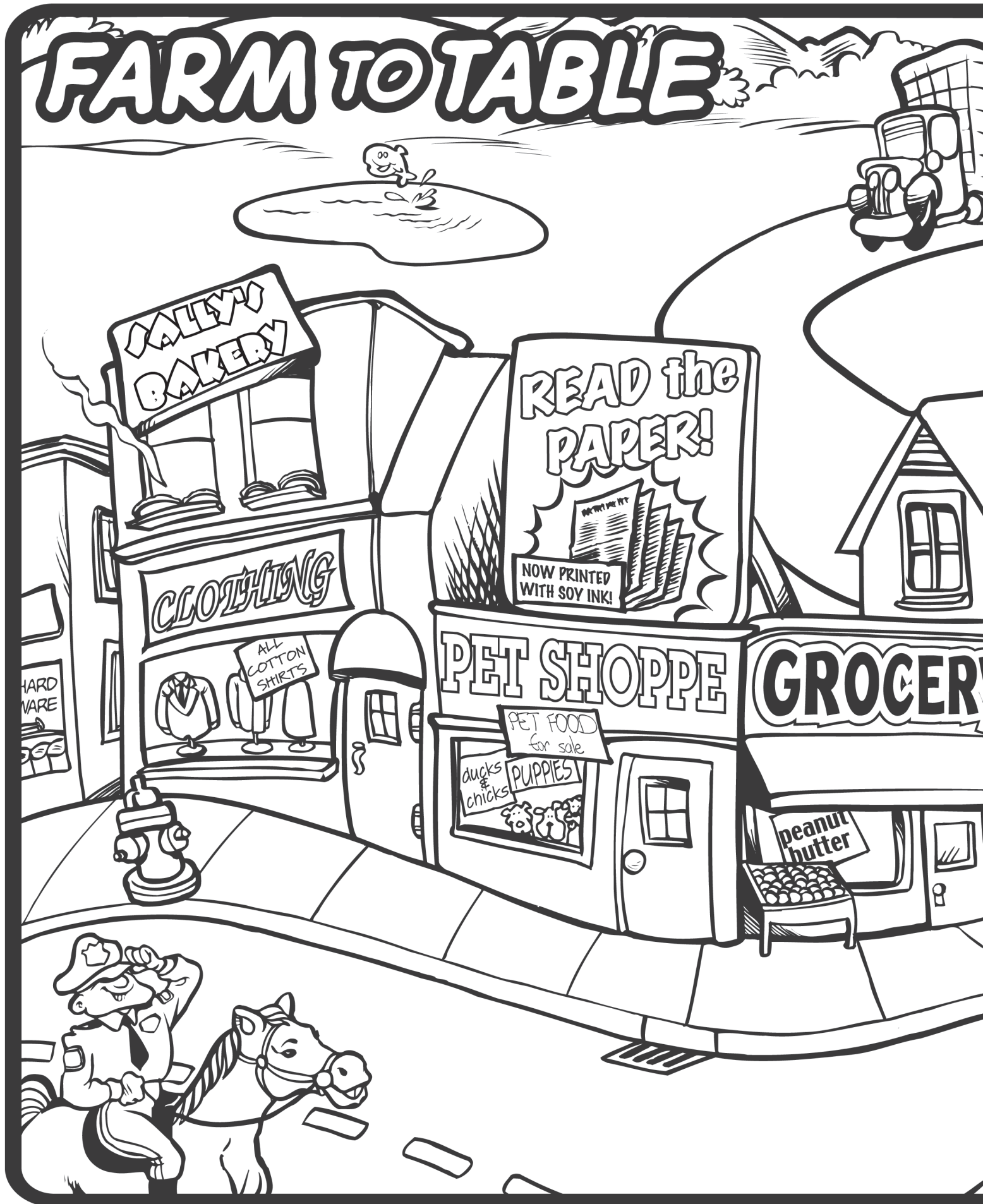


THE FOOD FROM THE
PLANT GOES TO
THE STORE

THE FOOD COMES
FROM THE STORE
TO OUR HOMES-
AND OUR TABLES!



FARM TO TABLE



A LOT OF THINGS WE BUY IN
STORES AND SEE EVERY DAY
COME FROM THE FARM. LOOK
AT THE STORES IN TOWN.
FIND THINGS THAT
CAME FROM THE FARM.

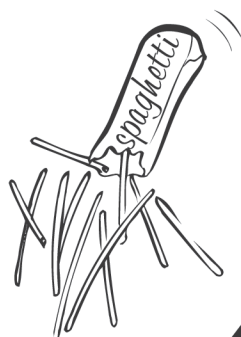


PLANTS OFTEN NEED MORE NITROGEN
THAN ANY OTHER NUTRIENT.



CORN AND OTHER PLANTS
NEED NITROGEN (N) TO BE
GREEN AND HEALTHY

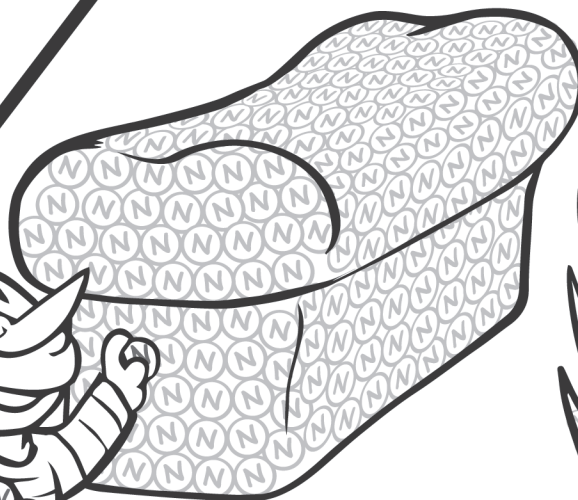
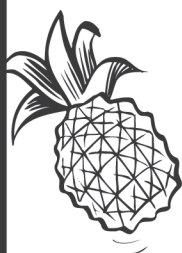
WITHOUT N, PLANTS
ARE WEAK AND LOOK
YELLOW.



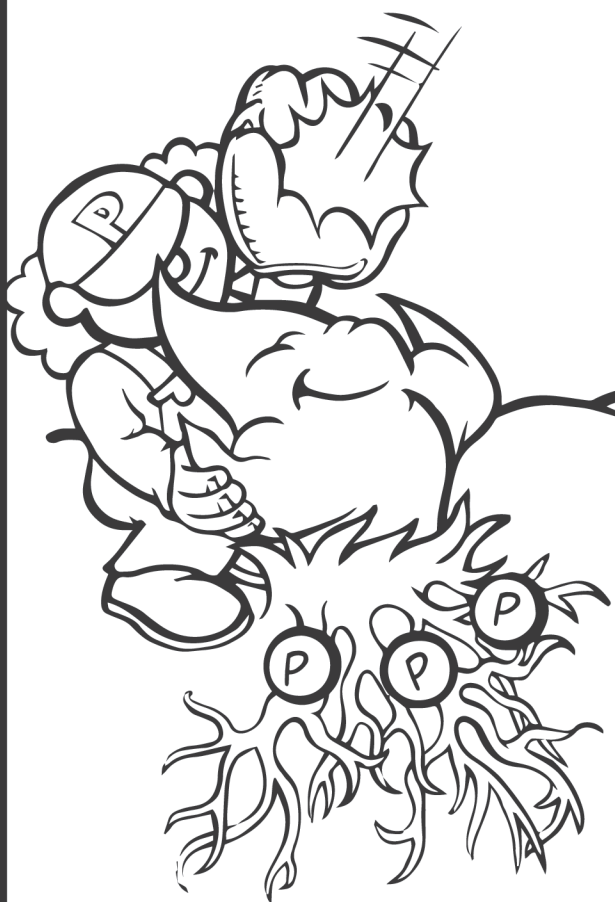
**NITROGEN IS A PART OF
PROTEIN WE GET FROM FOOD.**

CIRCLE THE FRUITS IN RED.
CIRCLE THE GRAIN PRODUCTS IN GREEN.

**NITROGEN
IS THE
BUILDING BLOCK
OF THE PROTEINS
INSIDE OUR
HEALTHY FOOD**



PHOSPHORUS (P) HELPS
THE PLANT CATCH THE
SUN'S ENERGY



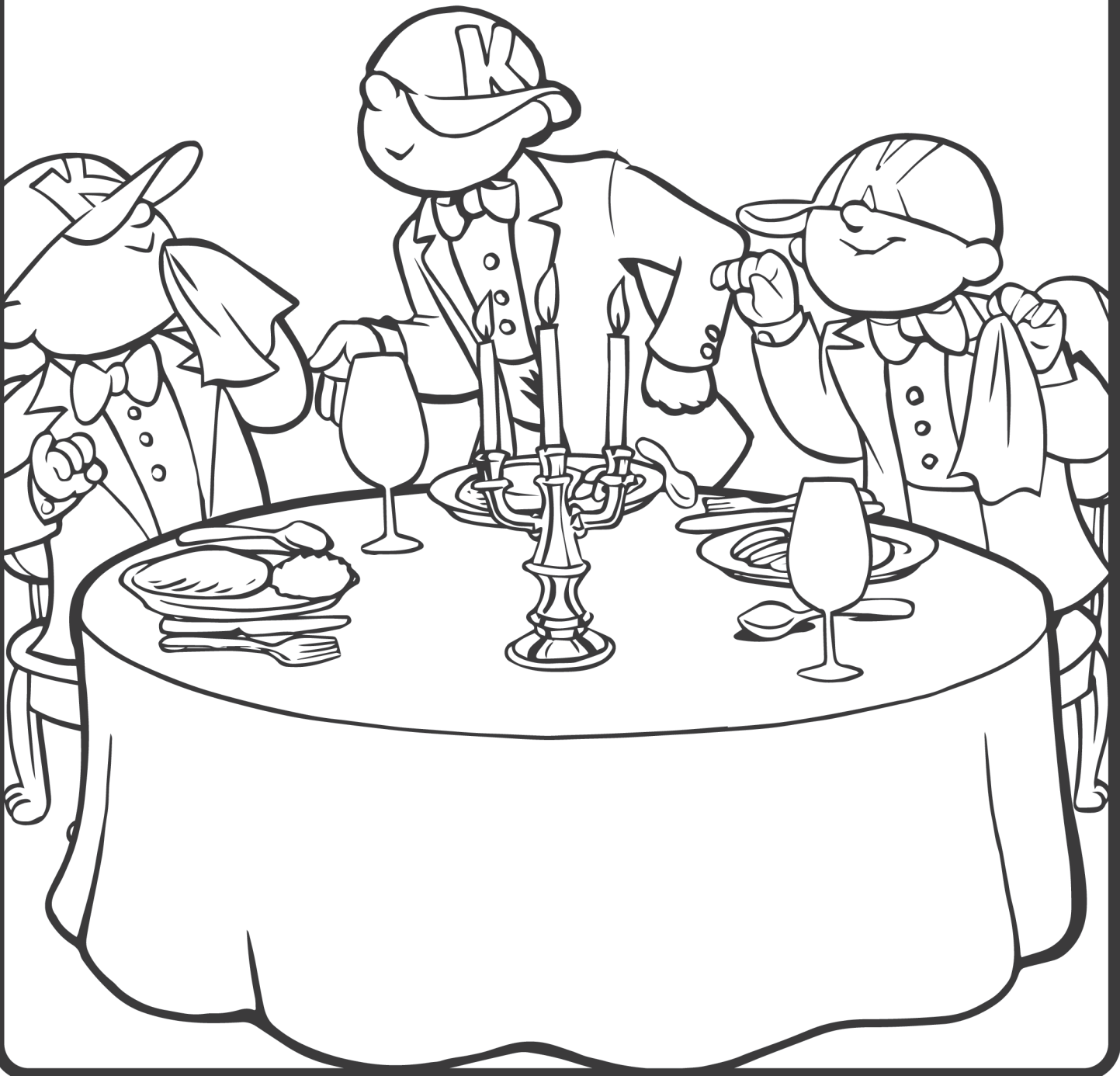
PLANTS NEED *P* FOR HEALTHY ROOTS

**PHOSPHORUS HELPS MAKE
SURE FOOD IS FULL SIZE
AND TASTES GOOD.**



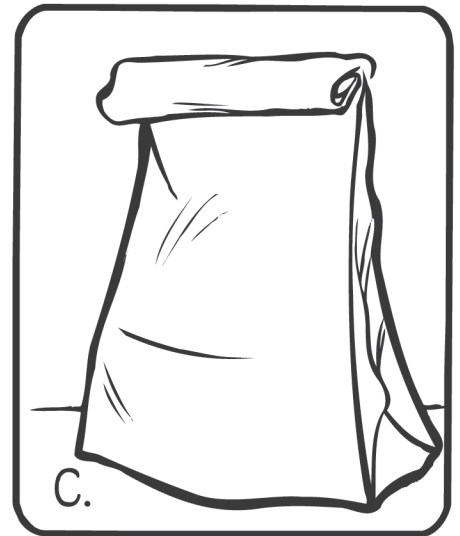
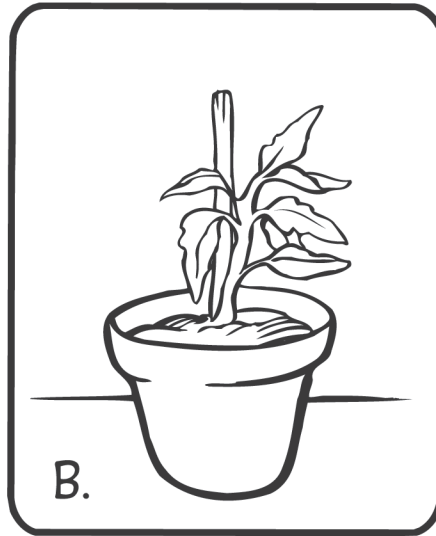
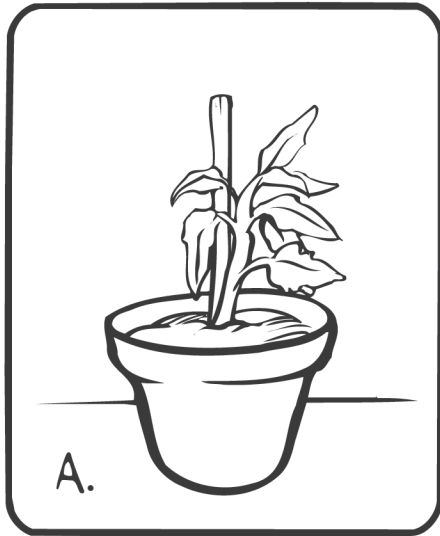


**POTASSIUM HELPS MAKE
OUR FOOD LOOK AND
TASTE ITS BEST.**



LET'S DO AN EXPERIMENT!

LET'S SEE WHAT HAPPENS TO PLANTS WHEN
THEY DO NOT HAVE FOOD AND SUNLIGHT.


☐

TAP WATER

☐

SAND

☐

SUNLIGHT

DAY 1



DAY 4



DAY 7



DAY 11



DAY 14


☐

TAP WATER

☐

GOOD SOIL

☐

SUNLIGHT

DAY 1



DAY 4



DAY 7



DAY 11



DAY 14


☐

TAP WATER

☐

SAND

☐

NO SUNLIGHT

DAY 1



DAY 4



DAY 7



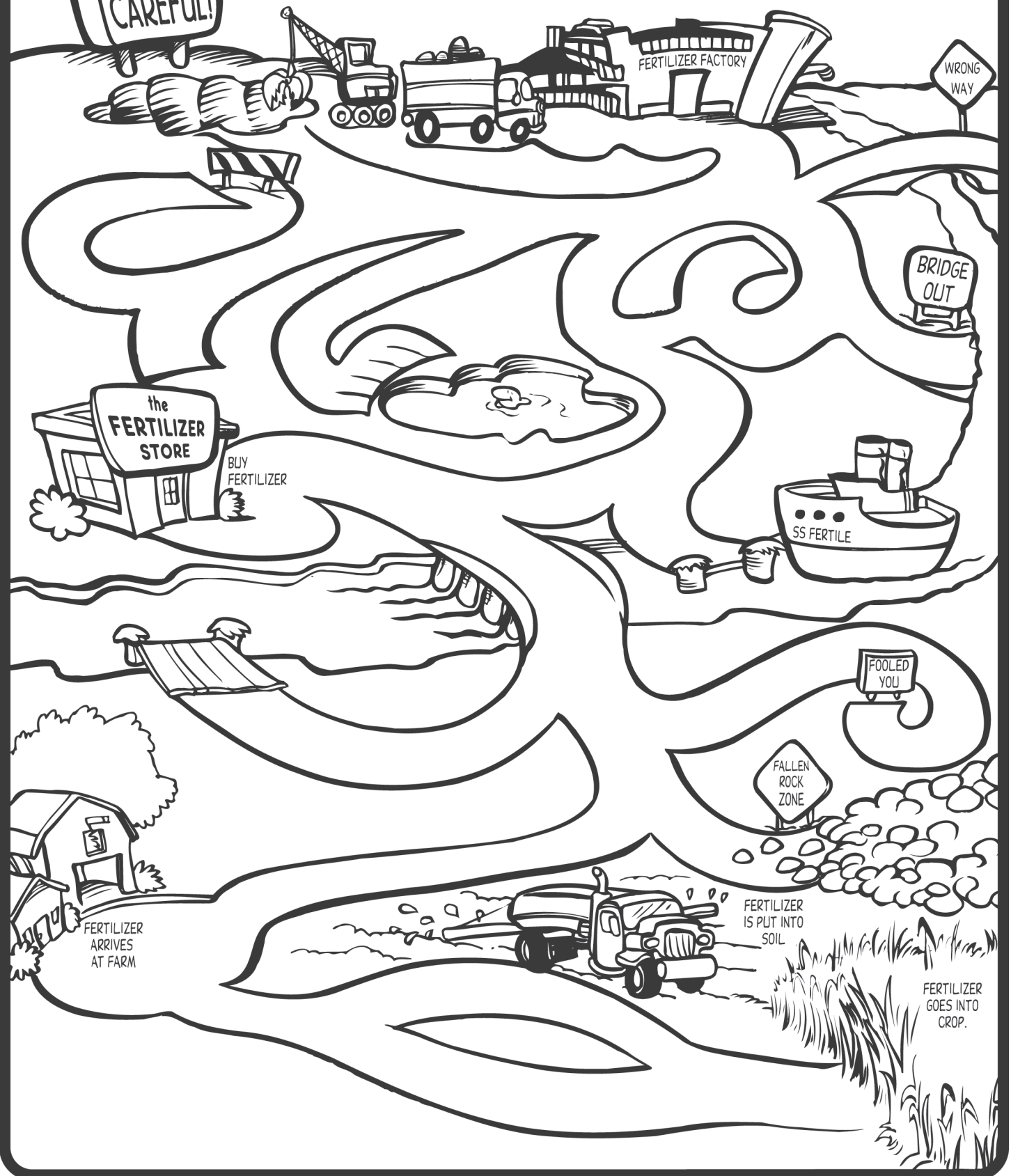
DAY 11

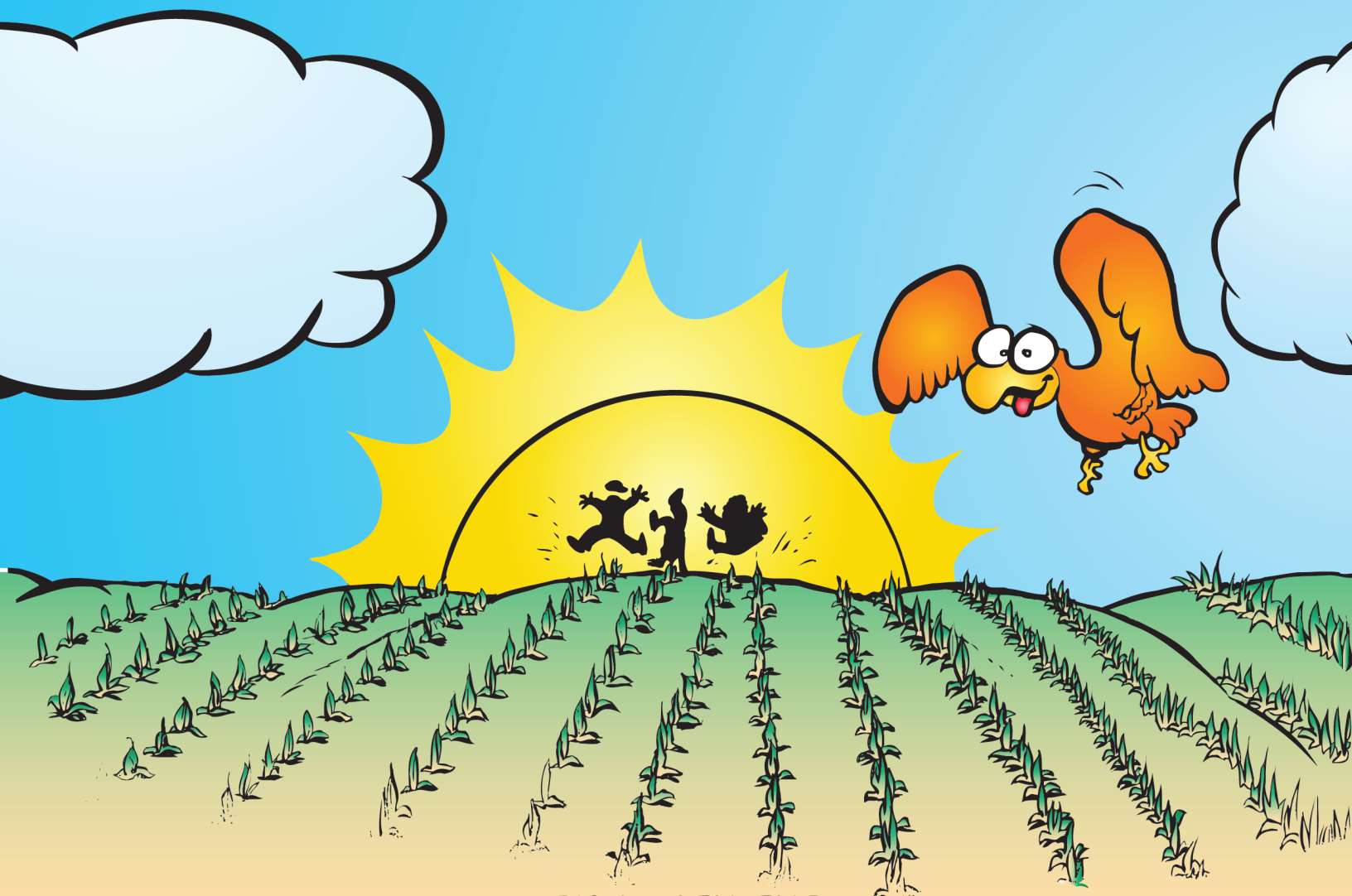


DAY 14



CAN YOU GET THE FERTILIZER TRUCK TO THE FARMER?





FUN WITH THE **PLANT NUTRIENT TEAM**

brought to you by:



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