

FROM FARM to SCHOOL— CROPS of NORTH CAROLINA



DIGGING
for
SWEETPOTATOES

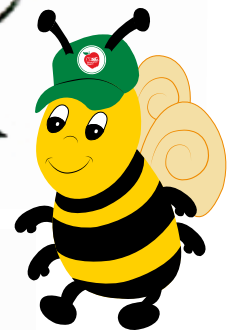
Story by
Heather Barnes and Karen Baltimore
Illustrations by Karen Baltimore

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Hi! I'm Farmer Bee.
Welcome to the farm!



DIGGING
for
SWEETPOTATOES



This book is dedicated to the farmers of North Carolina who grow sweetpotatoes and to the school nutrition professionals that prepare and serve them to our students.

This project coordinated by:

Heather Barnes, Marketing Specialist
North Carolina Department of Agriculture and Consumer Services
and

Karen Baltimore, Graphic designer and illustrator

Thank you....

The farmers who reviewed this project and allowed us to use photographs of their farms:

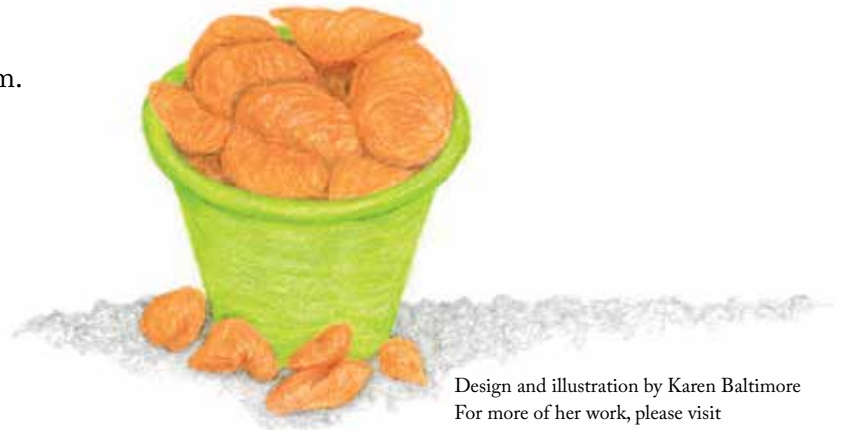
Jeff and Brooks Barnes
David Godwin, Godwin Produce
Jim Jones and Jessica Williams, Jones Family Farms
Laura Hearn, Nash Produce

The teachers and school nutrition professionals who reviewed this project:

Cindy Marion, Yadkin County School Nutrition Director
Tracey Bates, School Nutrition Specialist, North Carolina Department of Public Instruction
Frances Baker, Bailey Elementary teacher and NC Ag in the Classroom Curriculum Specialist
JoJo Nichols, Gates County Elementary teacher and NC Ag in the Classroom Curriculum Specialist
Michele Reedy, Director, NC Ag in the Classroom
Darlene Petranick, Science teacher, Charlotte Mecklenburg Schools

North Carolina Sweetpotato Commission

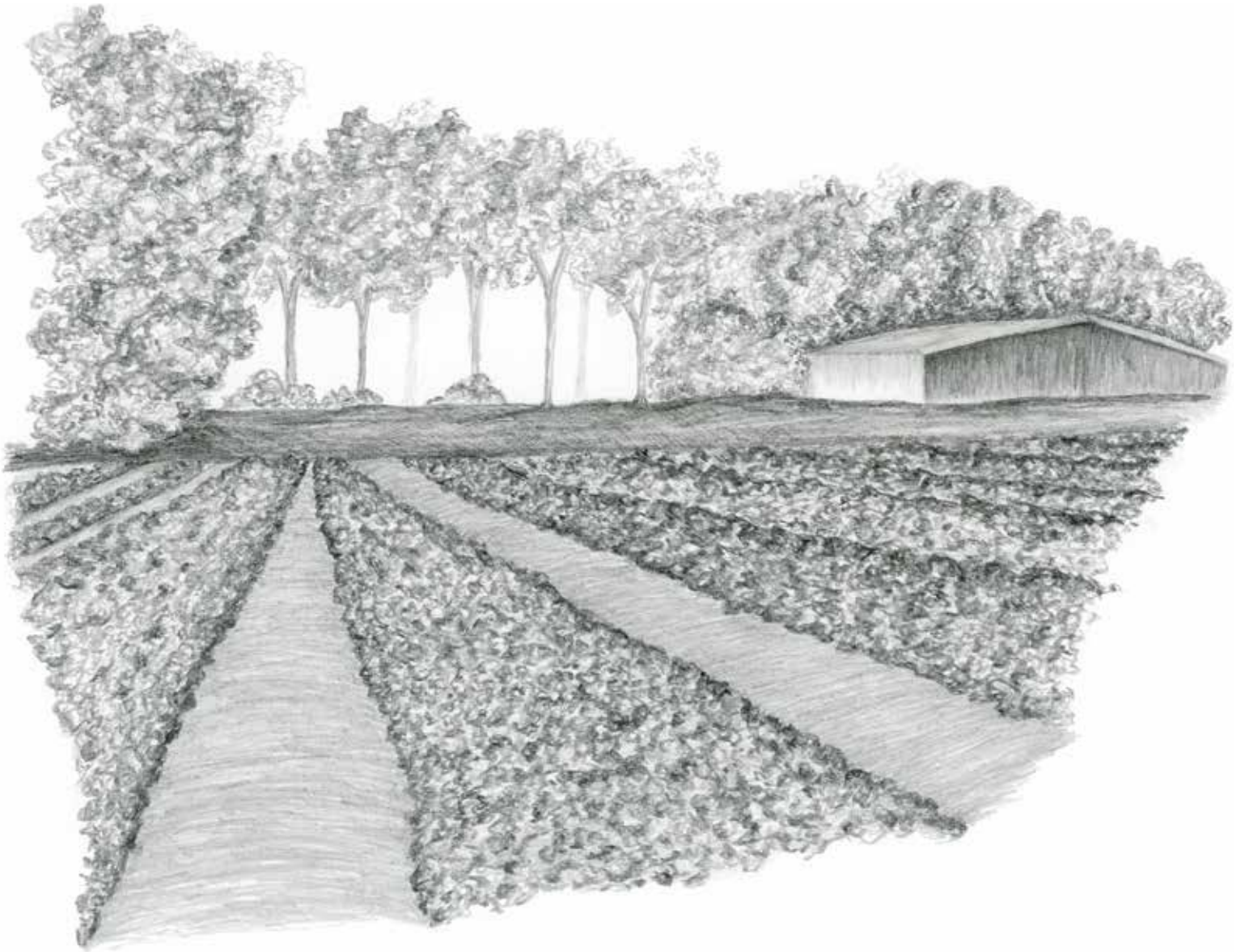
For more information visit www.ncfarmtoschool.com.



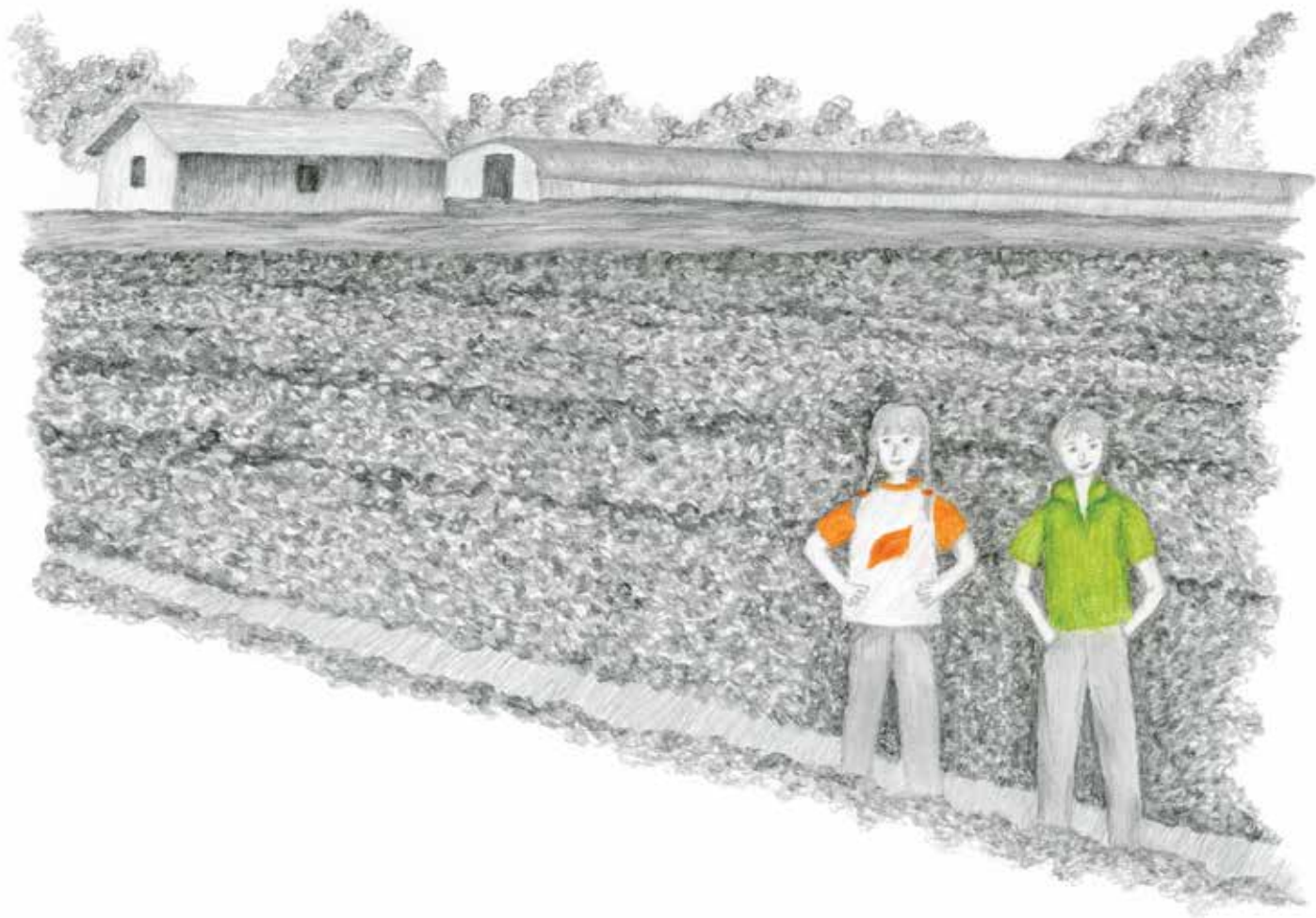
Design and illustration by Karen Baltimore
For more of her work, please visit
www.karenbaltimore.com



Have you ever wondered where the sweetpotatoes served at your school come from?

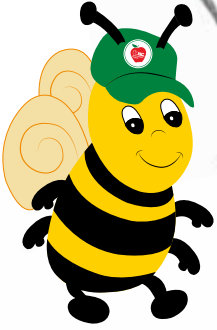


They come from farms like this one! North Carolina grows over half of all United States sweetpotatoes, more than any other state. That is one reason they were named our state vegetable.



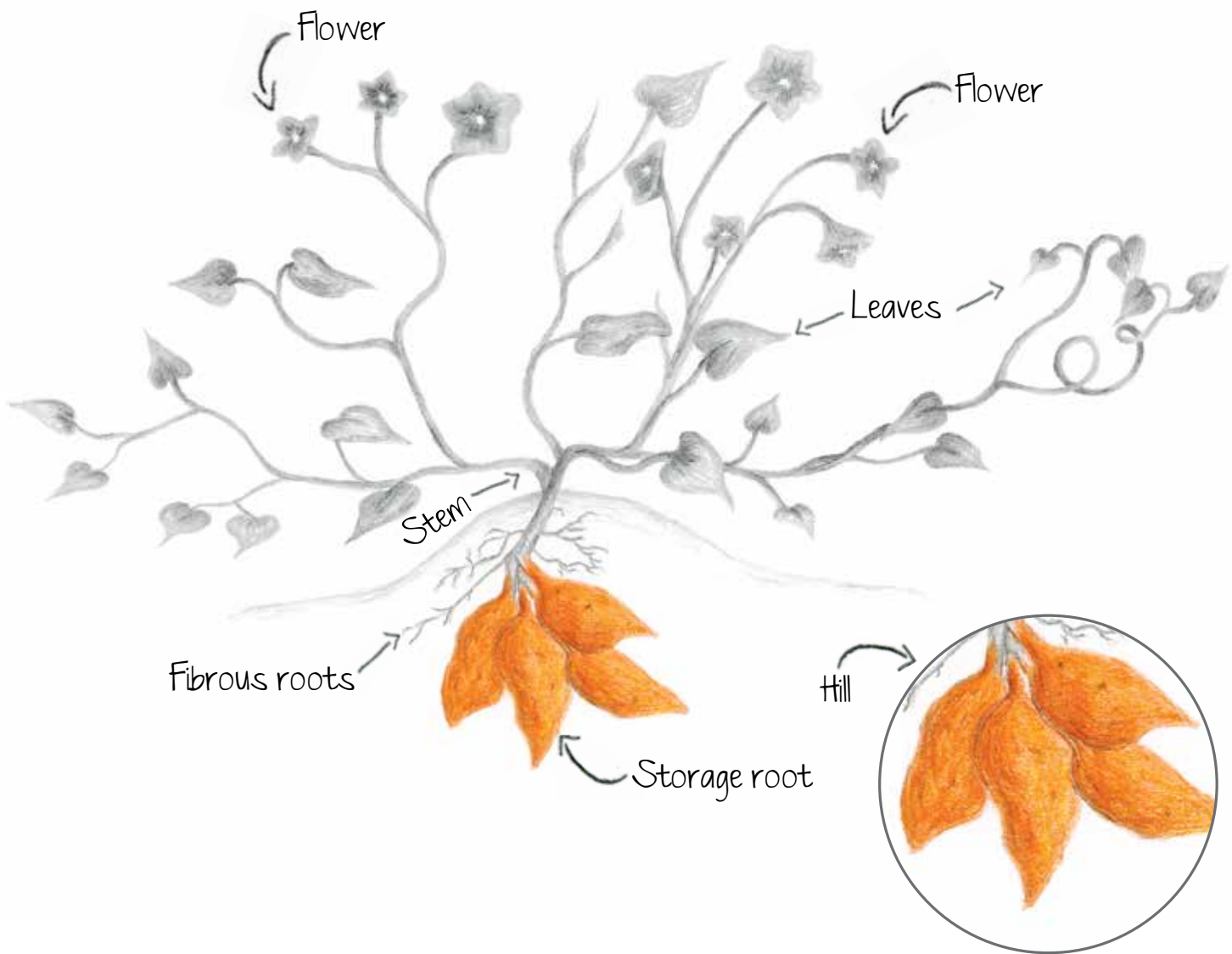
Harvest begins in August with peak harvest in October, but you can find North Carolina sweetpotatoes all year long. Come with us! We'll show you!

North Carolina
harvested
almost 95,000 acres
of sweetpotatoes
in 2016.

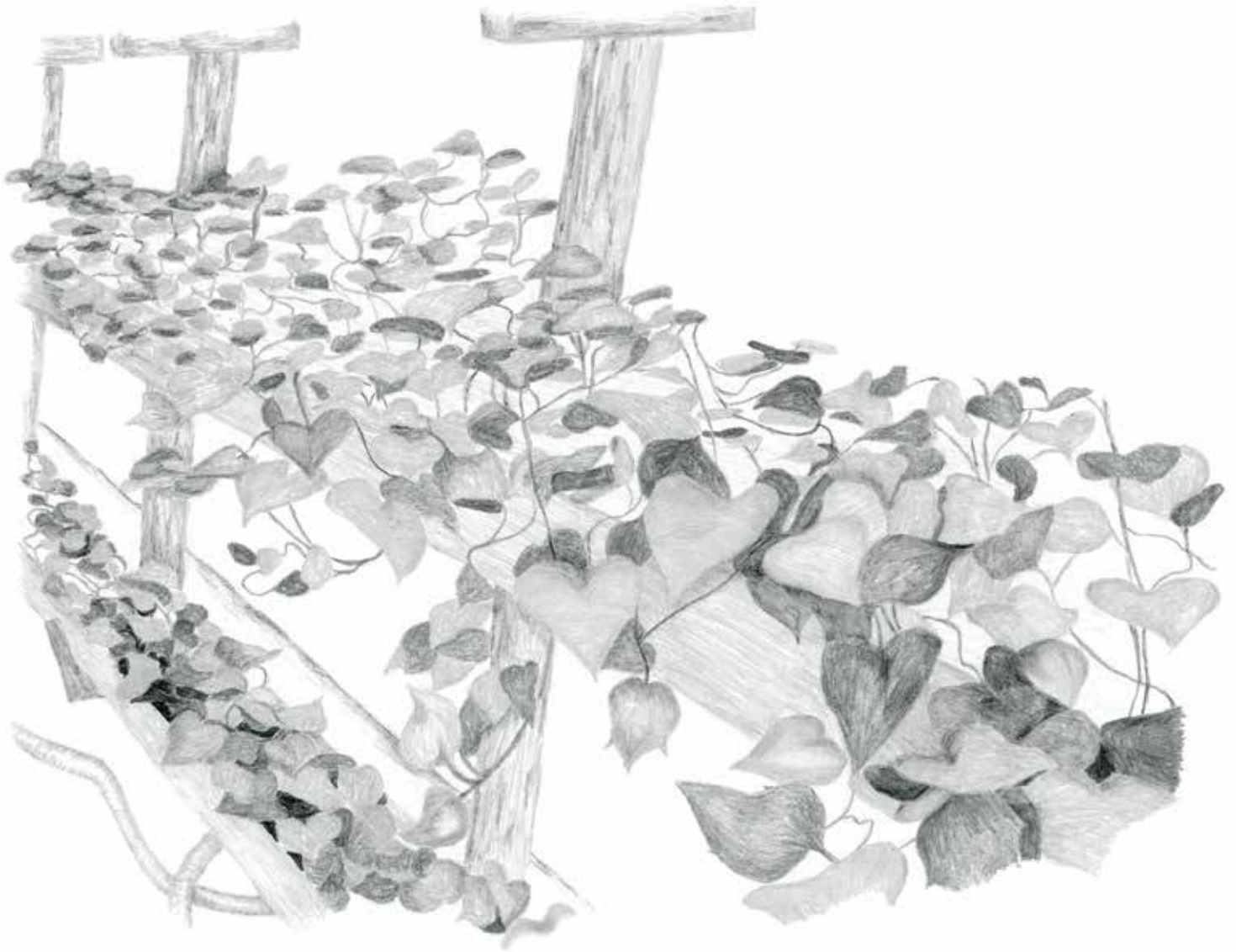


Most sweetpotatoes are grown on farms in the coastal plain region. North Carolina farmers grow different varieties. Did you know the inside flesh of sweetpotatoes can be orange, white, yellow, pink, red or purple?

A sweetpotato vine has a stem, leaves, flowers and roots like other plants. We eat the plant's storage root, which grows underground. A hill is the group of sweetpotatoes growing from one sprout. Can you find the hill of sweetpotatoes? How many are attached to the vine?



Farmers don't plant sweetpotato seeds. Instead, they transplant sprouts, also called slips, grown in a field or greenhouse.





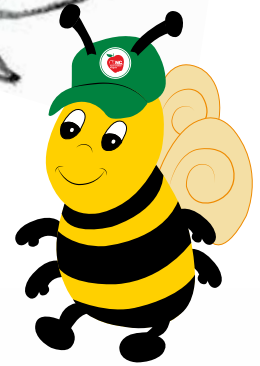
In late January farmers start growing sprouts in a greenhouse using plants they bought from North Carolina State University. Plants will be ready to transplant in 4–5 weeks.

Farmers also grow greenhouse sprouts from whole “seed” sweetpotatoes. The sweetpotatoes are laid between two layers of special potting soil. Watered daily, the sweetpotatoes will soon start growing stems.



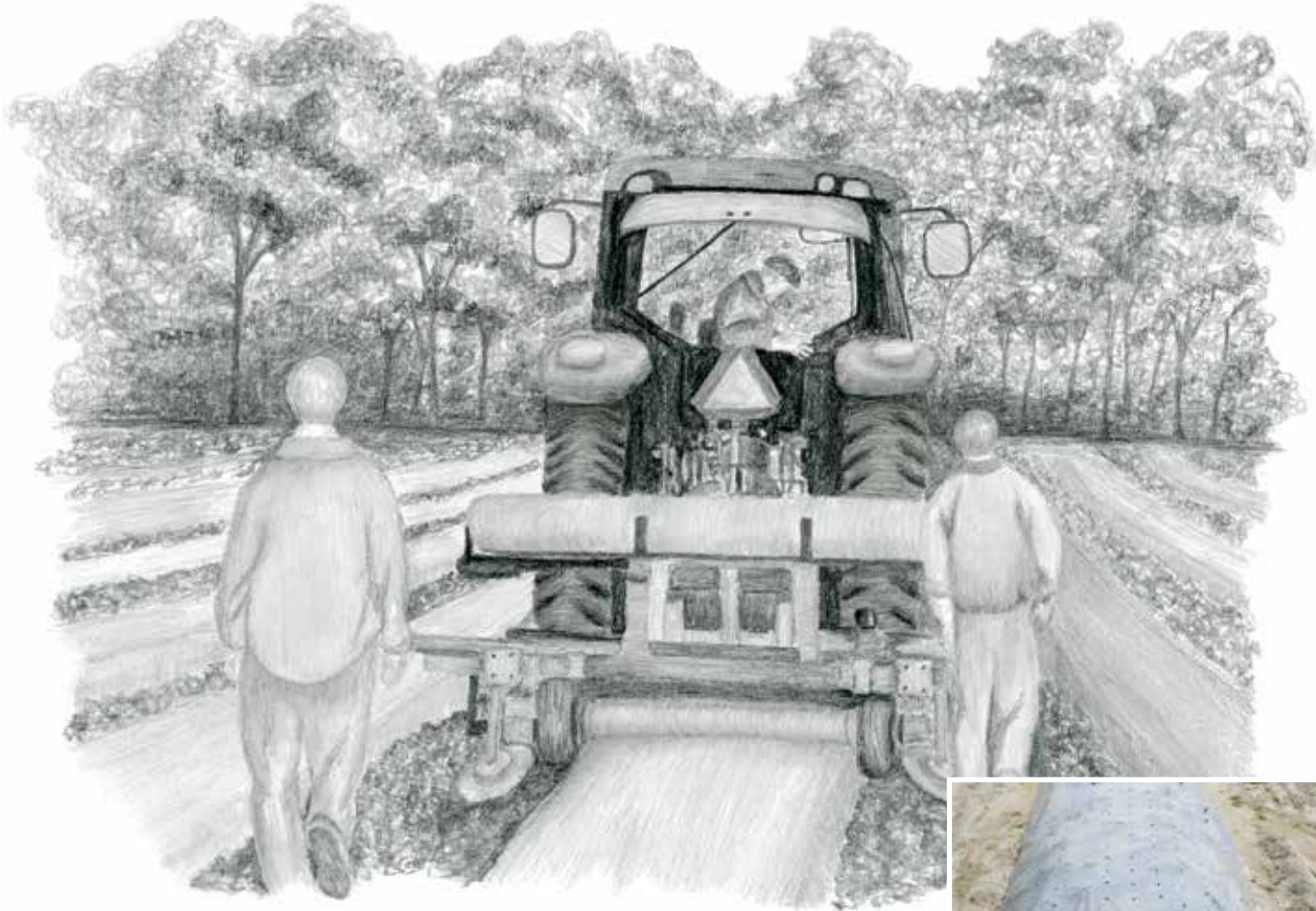


U.S. President
George Washington
was also a
sweetpotato farmer.



In March, farmers spread whole “seed” sweetpotatoes on the ground. A roller mounted on the front of a tractor pushes the potatoes into the ground before they are covered by a thin layer of soil.

Next, a layer of clear plastic is laid over the rows. The plastic helps hold in water and heat and protects the plants from frost. Plants breathe oxygen through small holes in the plastic.

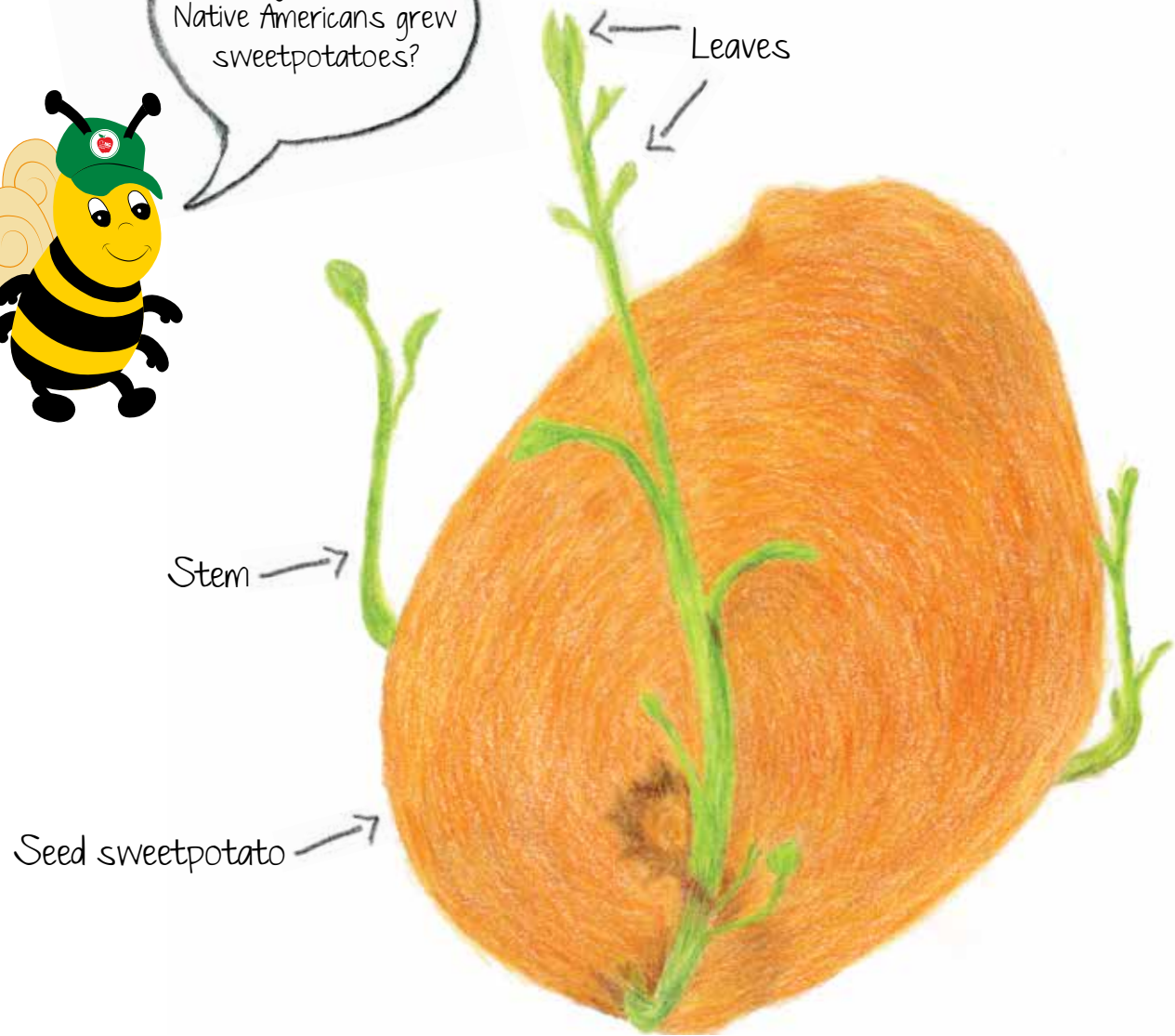


Farmers water seed potatoes through drip tape which is laid under the plastic.

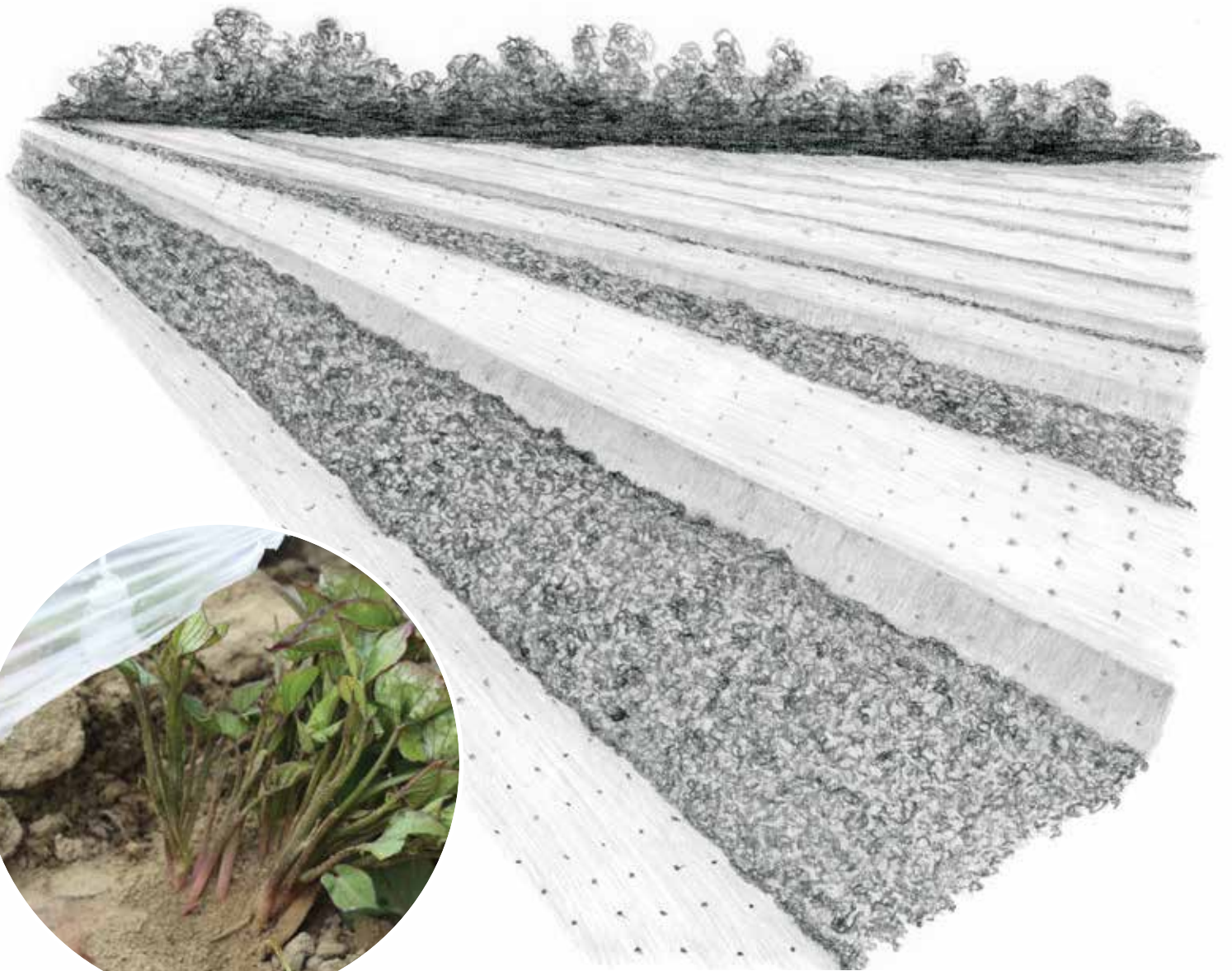




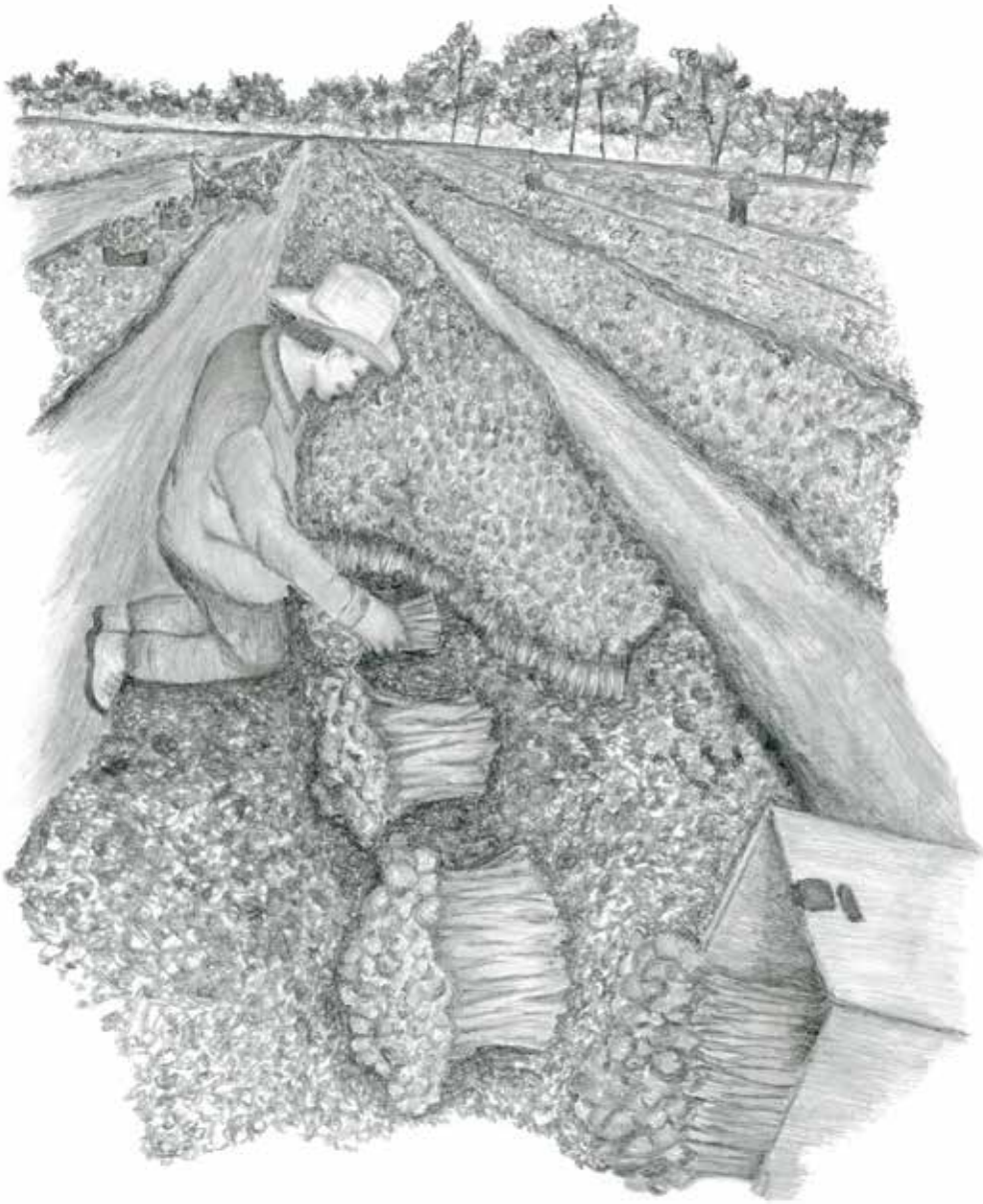
Did you know
Native Americans grew
sweetpotatoes?



Stems begin to grow from the seed sweetpotatoes. The stem we cut is called a sprout.



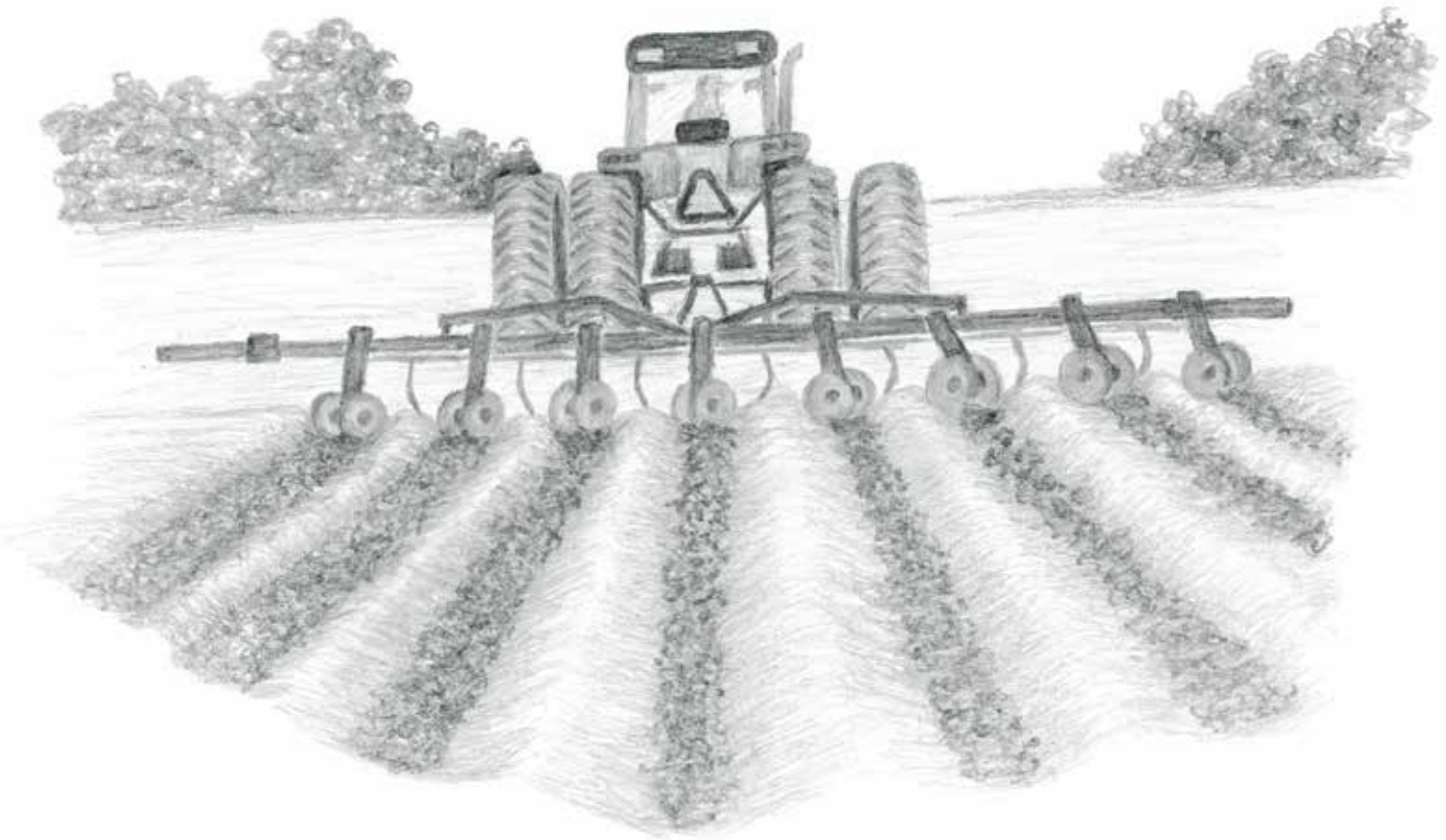
As sprouts grow, the farmer will tear larger holes in the plastic so more oxygen can reach the plant.



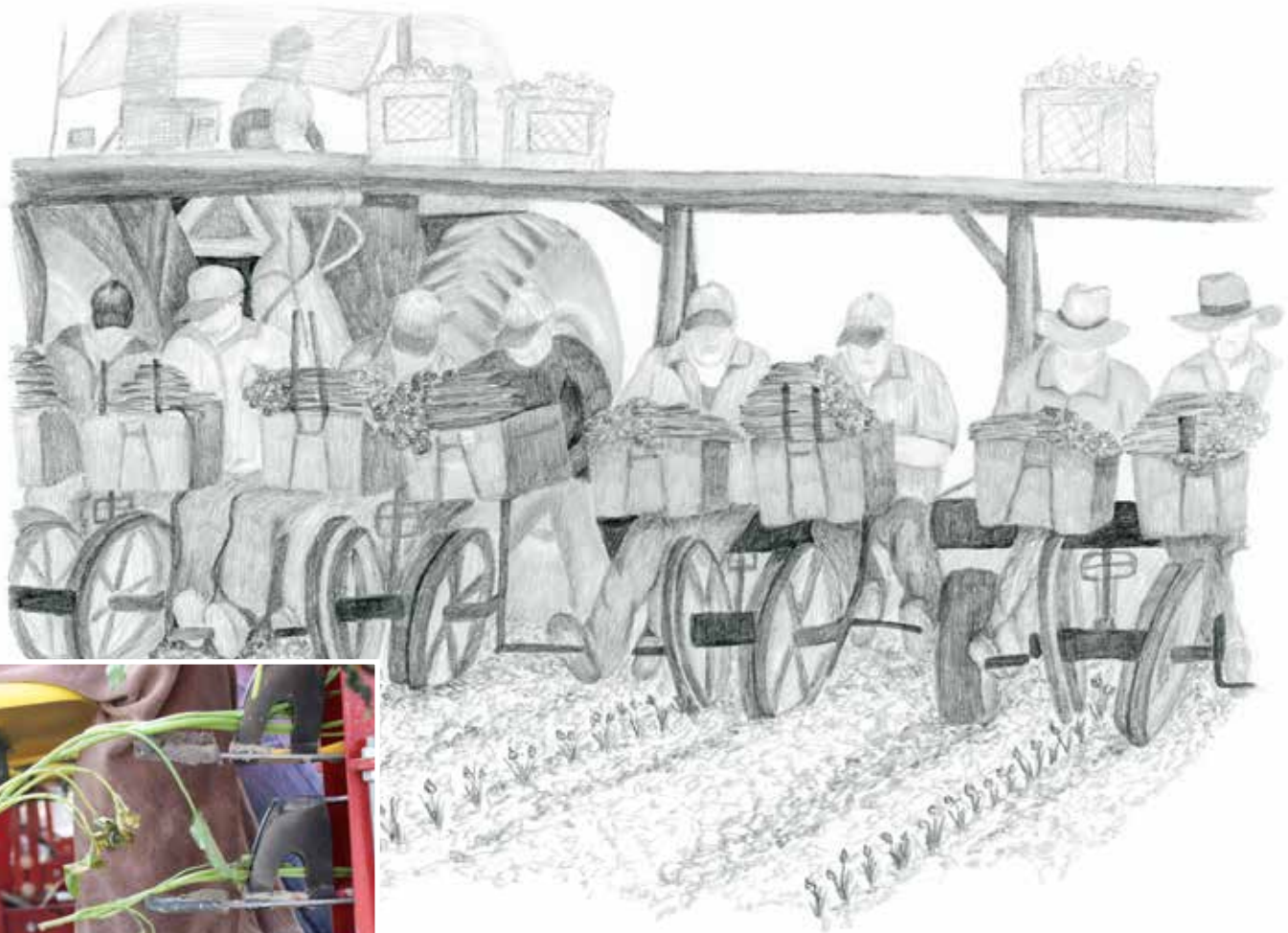
Cut sprouts are between 8 and 12 inches long and don't have any roots.

Field grown sprouts will be ready in May. They will be cut and transplanted to a different field.

In April, farmers start getting different fields ready for transplanting sweetpotato sprouts. Land is plowed and formed into raised beds using a bedder. The raised bed helps water drain through the soil.

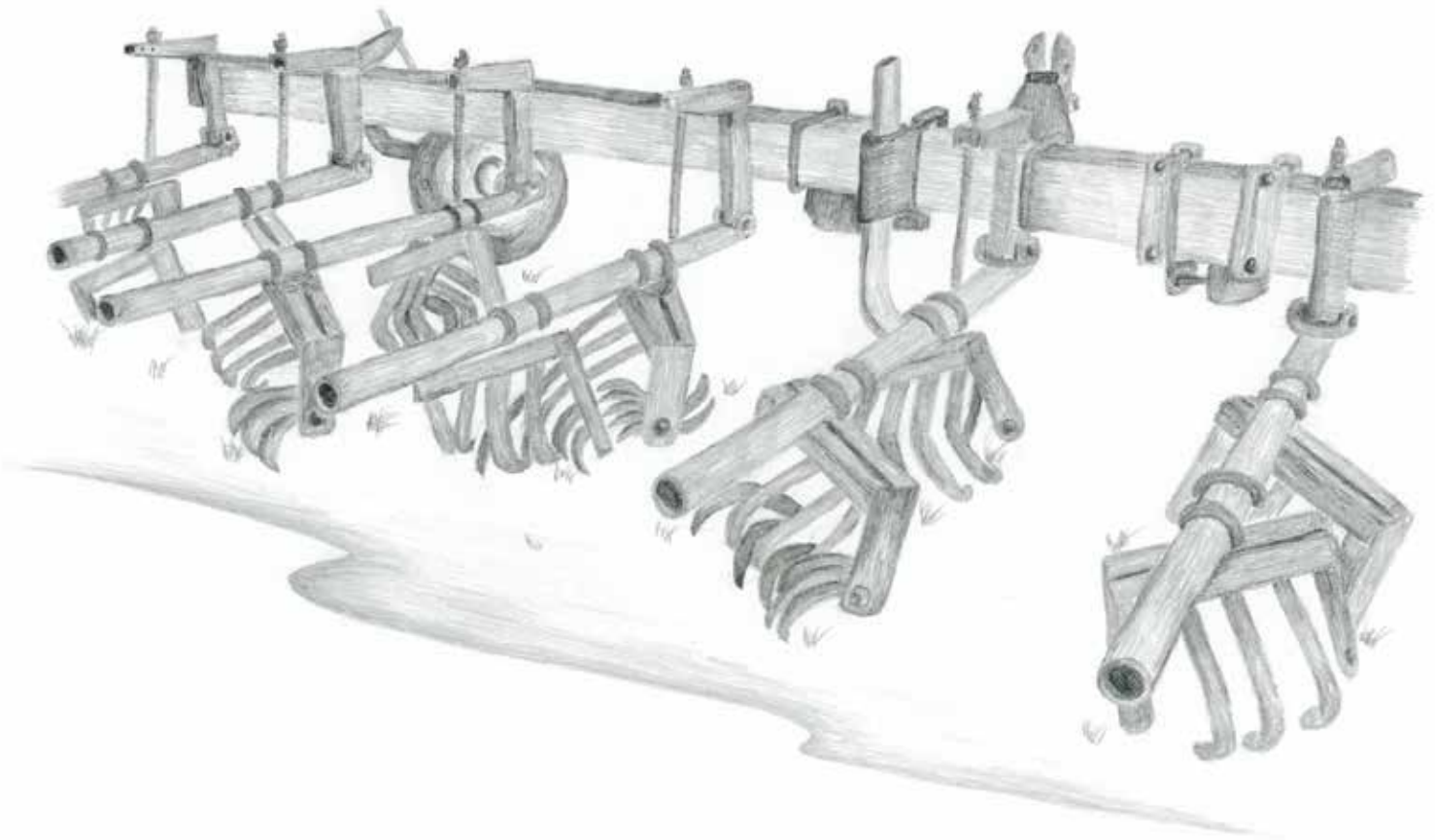


Workers ride on a machine called a setter to transplant sprouts in the planting field. Sweetpotatoes are not planted in the same field two years in a row. The farmers rotate fields to help control weeds, insects and disease.



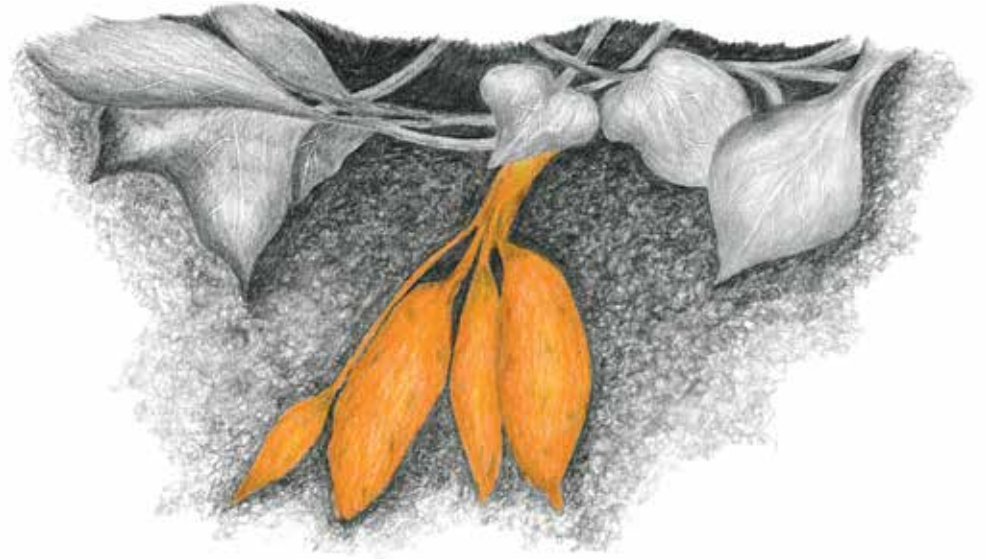
Sprouts are placed in fingers of a wheel that rotates and plants each sprout.

After setting, rows are plowed. This allows the farmer to mix fertilizer into the soil and helps control weeds. The sweetpotato vines will eventually grow enough to cover the bare soil between the rows.

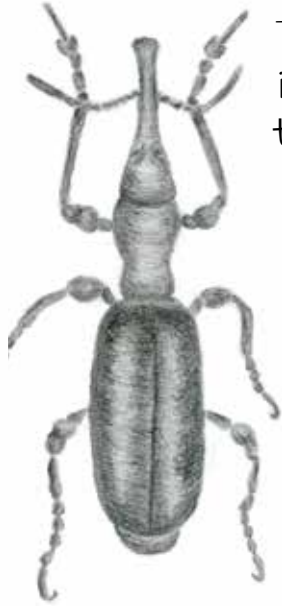




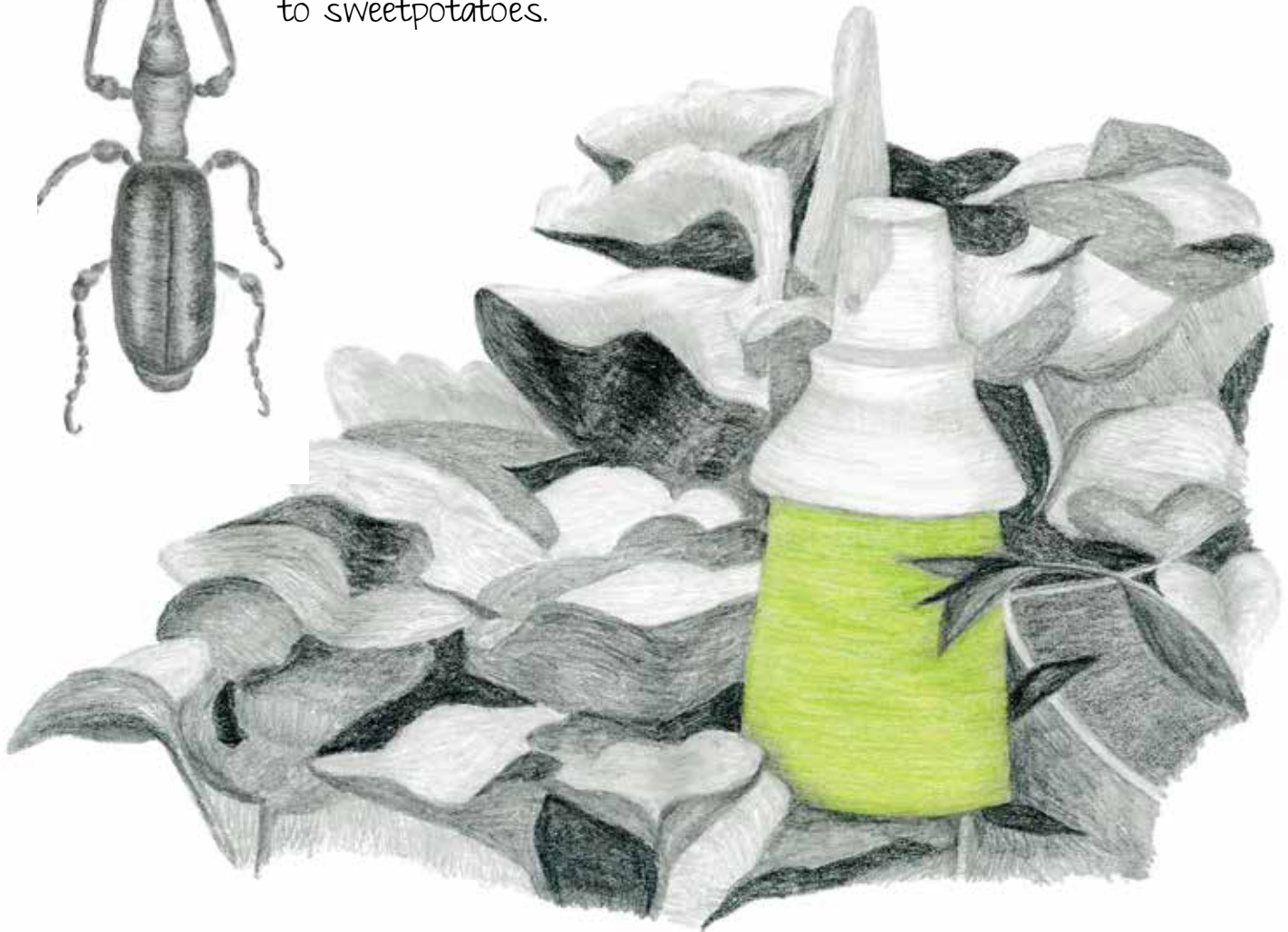
Did you know
that dinosaurs may
have eaten
sweetpotatoes?



Sweetpotato vines have pink or purple flowers. Honey bees carry pollen from flower to flower. With their help, farmers can grow lots of sweetpotatoes!

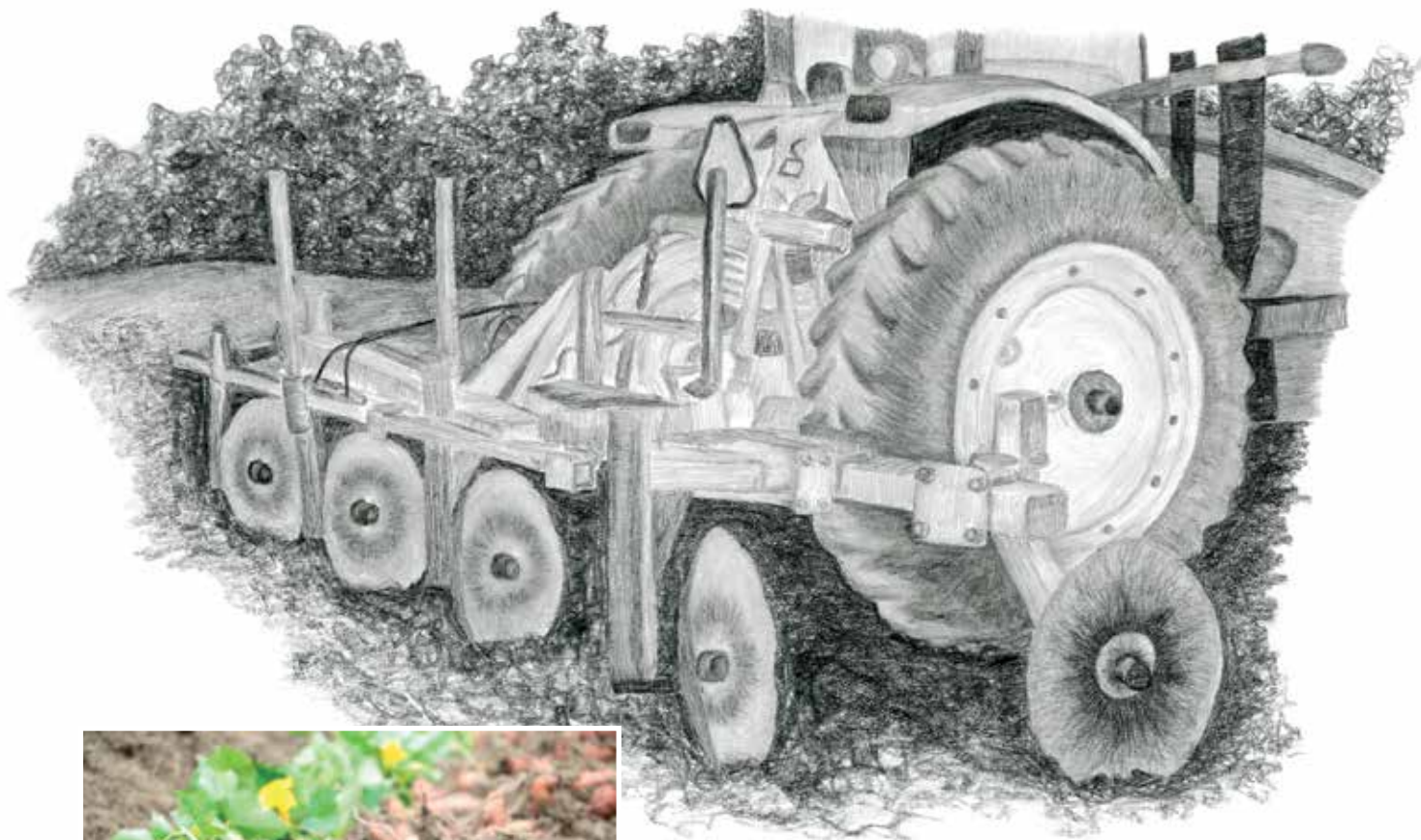


The sweetpotato weevil is the most serious pest to sweetpotatoes.



In August, you will see green traps in sweetpotato fields. Farmers are looking for sweetpotato weevils, insects that damage plant vines and roots. Traps are checked to see if any weevils are in the field.

It takes 90–120 days without frost, known as frost-free days, to grow a sweetpotato. Harvest will start in August. Farmers use a special plow, which gently digs the sweetpotatoes, flipping them on top of the ground.

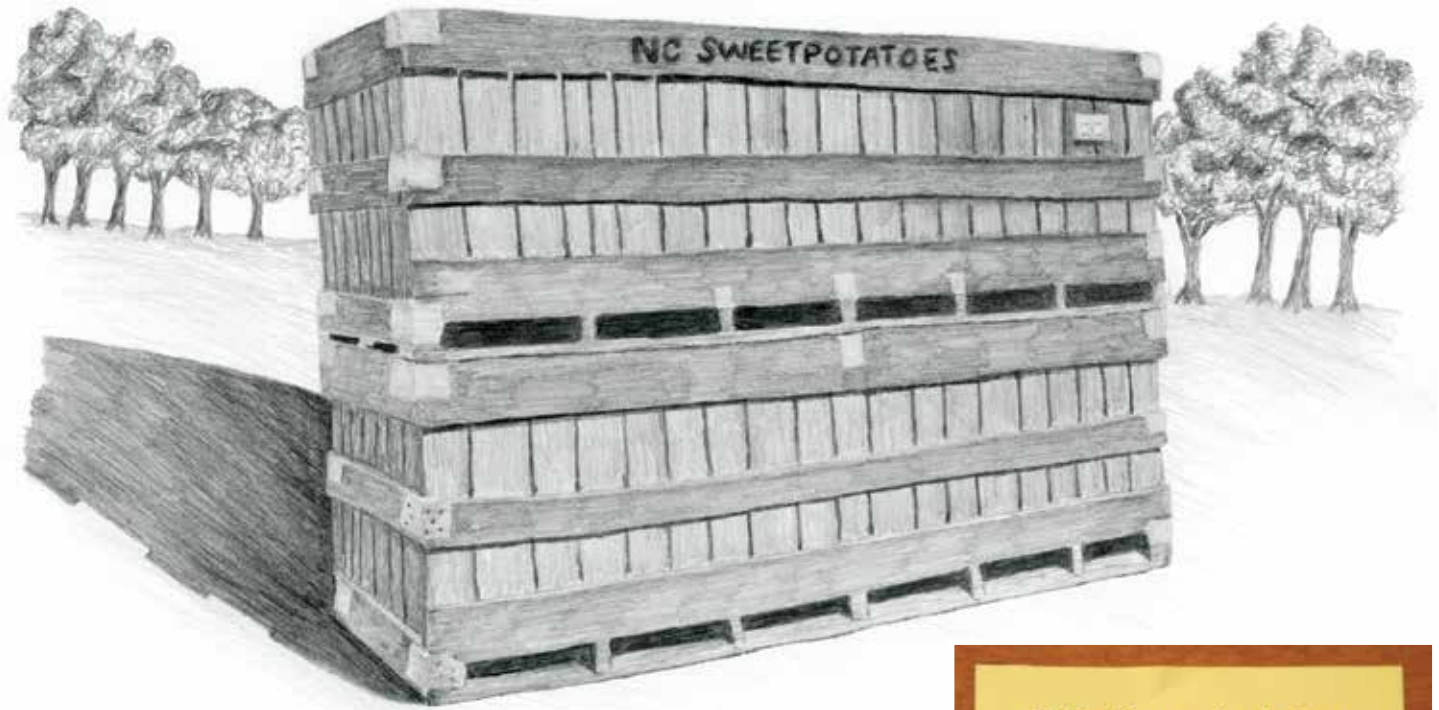


African American scientist
George Washington Carver
created over 100 products
using sweetpotatoes.



Sweetpotatoes, like many vegetables and fruits, are harvested by hand. Workers collect sweetpotatoes in plastic buckets and carry them to a truck where they are poured into wooden boxes.

Each box has a piece of paper stapled to it with information including what day the sweetpotatoes were harvested and the farm name. Most boxes hold 40 bushels. One bushel is equal to 55 pounds. Wow! That's a lot of sweetpotatoes!



**N.C. Sweetpotato
Farm**

DATE _____

FARM NAME _____

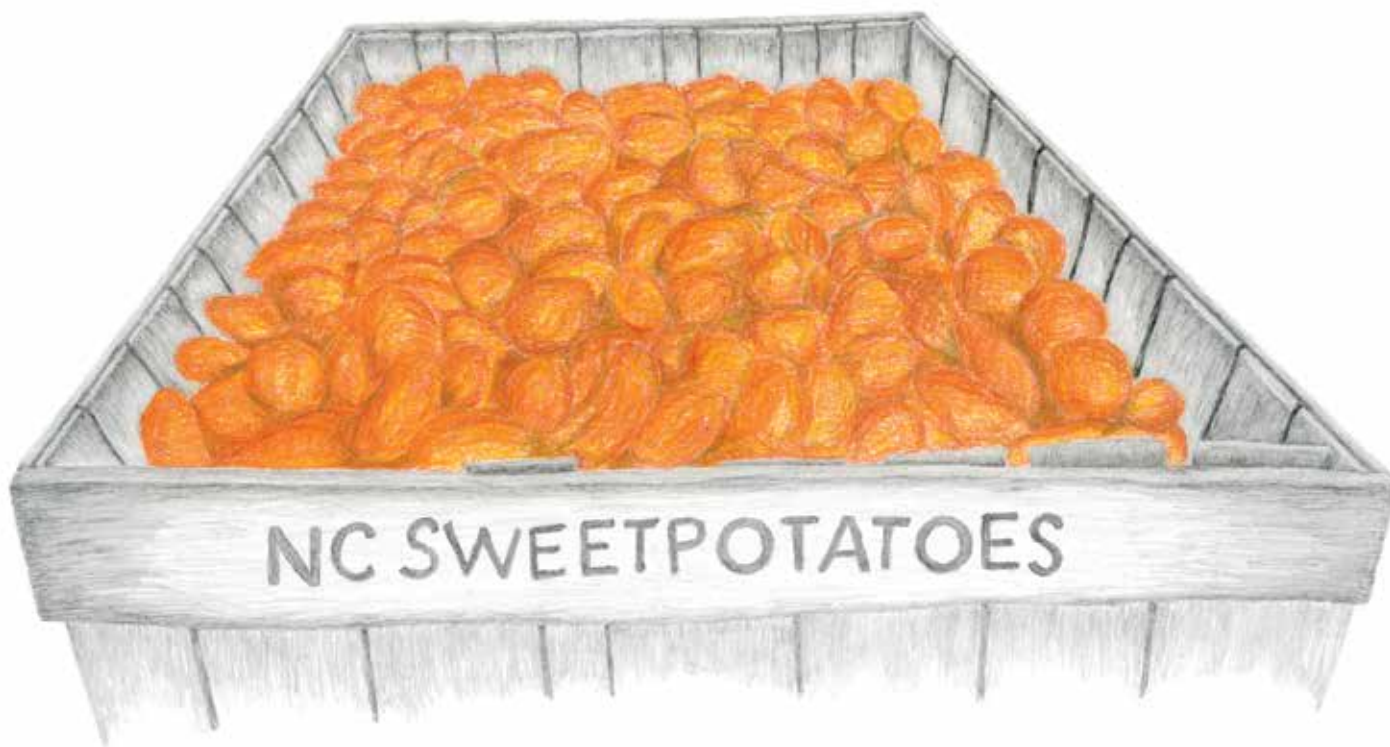
CREW _____

VARIETY _____



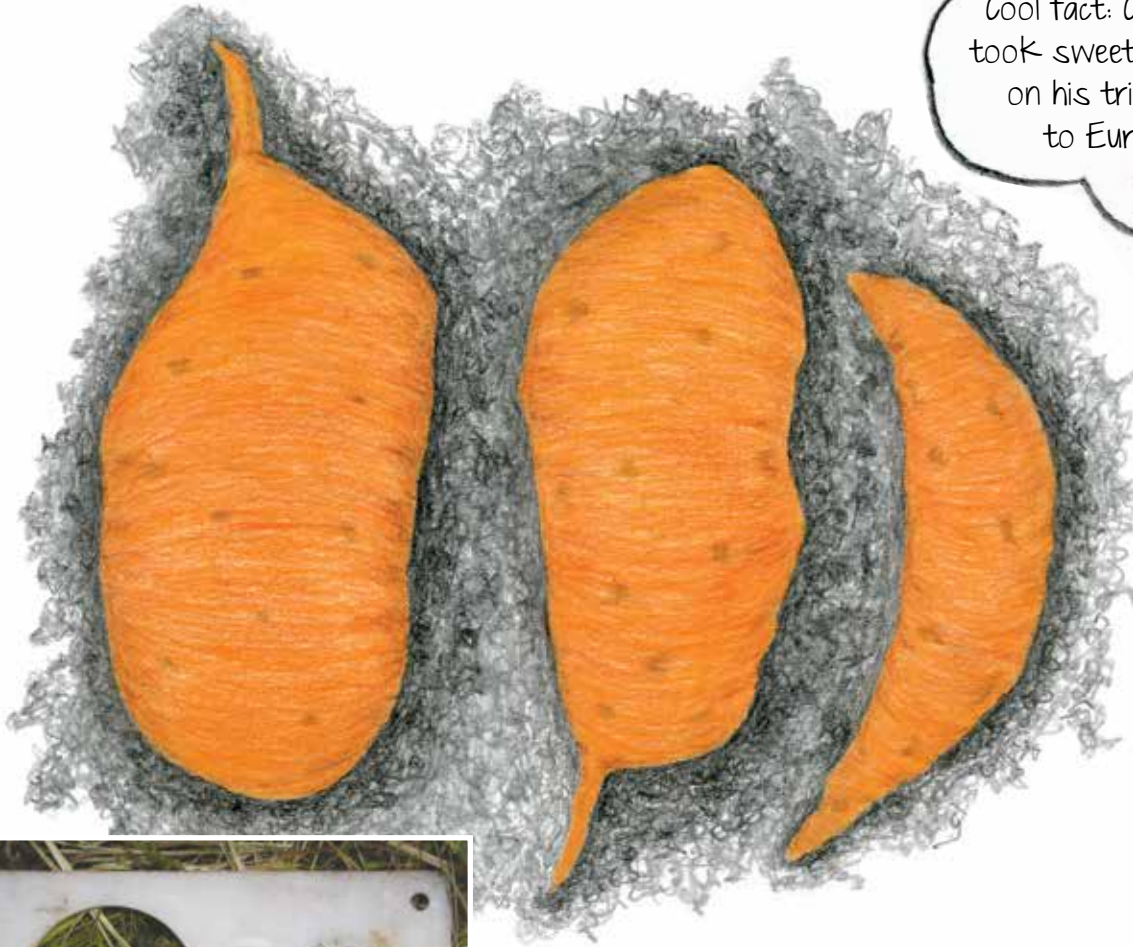
Trucks take the boxes of sweetpotatoes to a storage building where a forklift unloads them. The boxes are stacked inside a temperature controlled storage building. Some sweetpotatoes are sold as soon as they are harvested.

Most sweetpotatoes are cured after harvest. Kept in a warm, humid room for 4-7 days, starch in the sweetpotato will change to sugar, making them taste sweeter. Once cured, sweetpotatoes can be stored at cooler temperatures for up to one year before being sold by the farmer.



The boxes are removed from storage when it is time to sell. The sweetpotatoes are washed, graded for quality and sorted by size.





Cool fact: Columbus took sweetpotatoes on his trip back to Europe.



Sweetpotatoes are packed based on their size. Jumbos are the biggest. U.S. No. 1 is the next size and the smallest roots are called canners. A sorting board is a training tool that can be used by workers in the field to separate the sweetpotatoes by size.

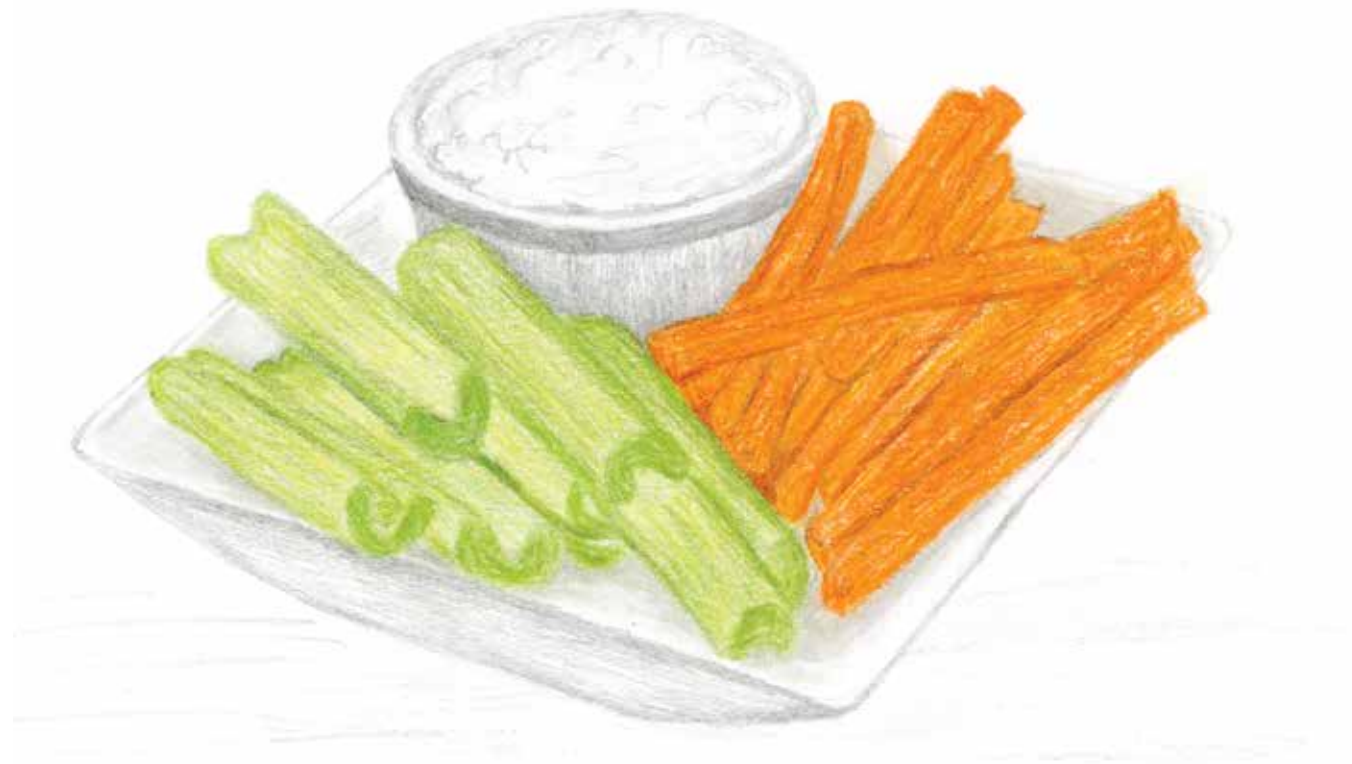


Many sweetpotatoes are packed in 40-pound boxes. Others are packed in bags, trays or microwavable wraps. Farmers also sell them for processing into food products including baby food.

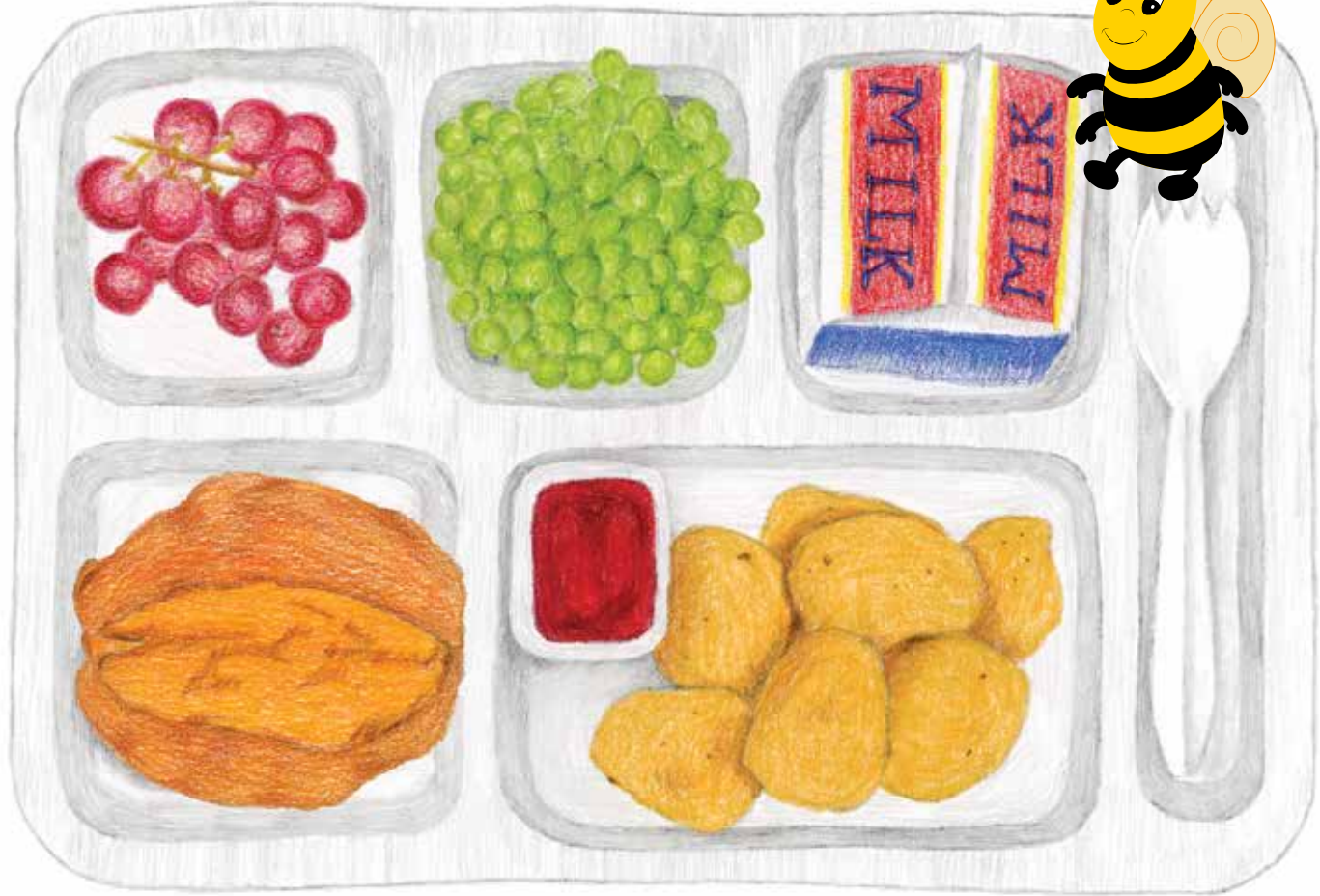


North Carolina farmers sell sweetpotatoes all over the world. Some are sold through the North Carolina Farm to School program and brought to your school in a big truck from the North Carolina Department of Agriculture and Consumer Services.

Sweetpotatoes can be eaten raw or cooked. Did you know you can eat the whole sweetpotato, even the skin? Sweetpotato sticks are a delicious snack. Ask an adult to help you cut a sweetpotato into sticks or slices. I like to dip mine in ranch dressing. Yummy!



Sweetpotatoes
are also high
in beta-carotene!



Sweetpotatoes are not just delicious. They are good for you too! A medium sweetpotato has only 100 calories and is a good source of vitamins A and C. How are they served in your school?



I love warm, delicious whole grain sweetpotato muffins for breakfast!
How about you?



The North Carolina Farm to School program has been supplying school cafeterias with fresh, NC grown produce since 1997. The program is coordinated by the North Carolina Department of Agriculture and Consumer Services. For more information, please visit ncfarmtoschool.com.



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