FUTURE JOBS READERS

Level 4 - A

Agricultural Engineers

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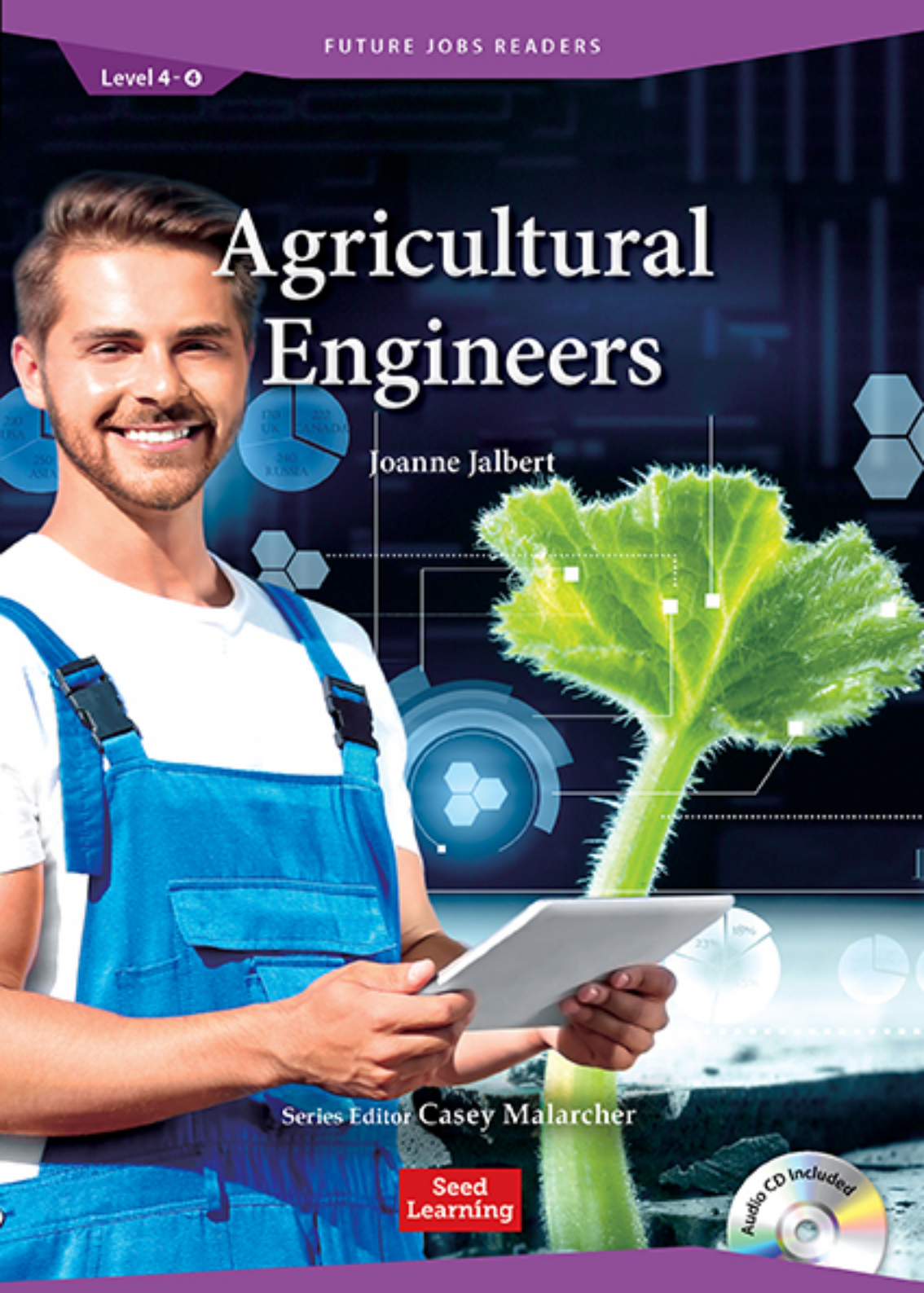

Series Editor Casey Malarcher

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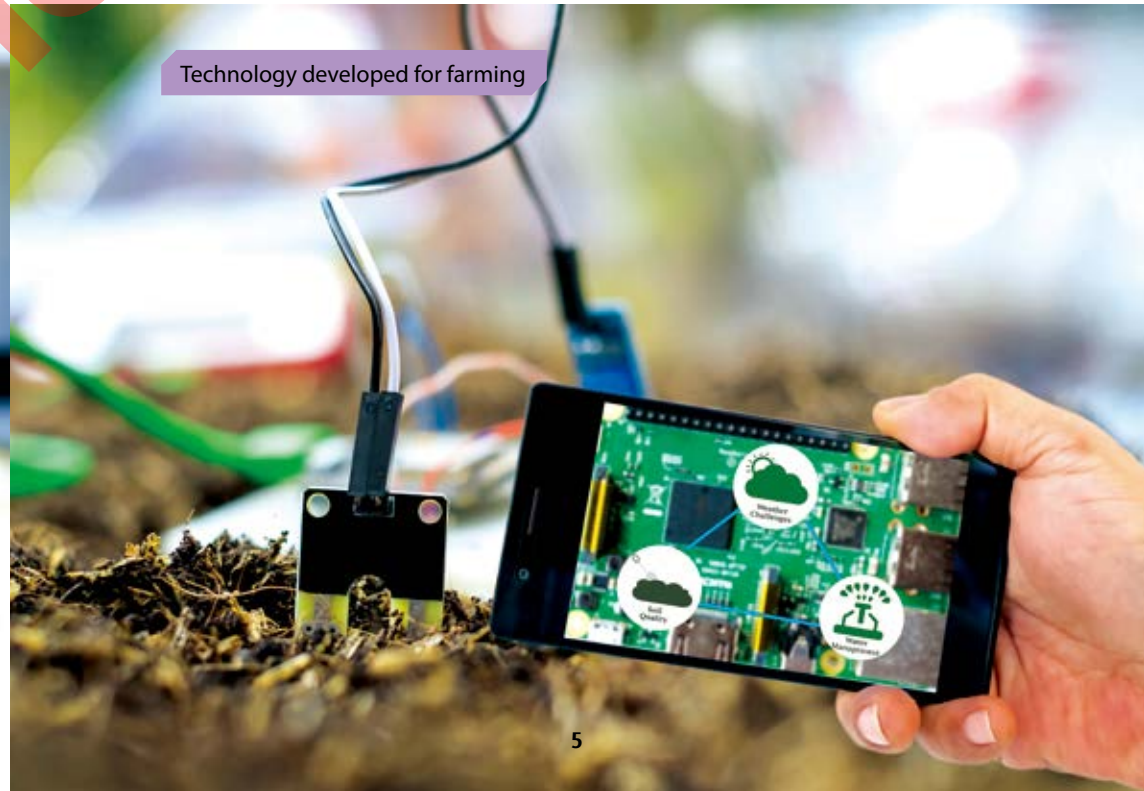
Contents

What Is an Agricultural Engineer?

Hi, my name is Bob. Although I might look like a farmer, I'm actually an agricultural engineer. Agriculture is the science of growing things like crops, which are plants that become food. Ever wonder how farmers grow so many tomatoes or corn or peas at the same time?

Engineering is all about designing and making things, and technology is a big part of agricultural engineering. I use modern machines such as tractors, GPS, information systems, and smart gadgets. Farmers on commercial farms need technology so they know how much water to give to their crops or when to harvest their fields. As a result, the crops that grow are healthier, stronger, and more nutritious to eat.

An agricultural engineer



Technology developed for farming

An architectural sketch

One of my favorite things to do is to design buildings with an agricultural function. When I designed this cow barn, I had to worry about how to keep the animals safe and healthy, what lighting to use, and how to make it easier for the farmers to remove waste.

A cow barn ▶

A fish farm

Agricultural engineers who live near the ocean are often involved in designing commercial fish farms. Farms raise fish because of the over-fishing of some types of endangered fish. An engineer designs the ponds that the fish are raised in.

Inspecting agricultural equipment

We can thank agricultural engineers for most of the food we eat every day. Did you know that agriculture is the largest industry in the world?

Jobs for an Agricultural Engineer

My job varies from week to week. This week, I'm helping a farmer who grows corn…a LOT of corn. Corn needs plenty of water to grow, and since this farm is so big, the farmer needs help getting water to all of his crops. I need to figure out how to get water to all of the corn stalks. The best way to do this is to build a water irrigation system.

A corn field

Comprehension Questions

1. What is agriculture?
   (a) The science of engineering
   (b) The study of endangered fish
   (c) The science of growing things
   (d) The study of irrigation

2. Drones and smart tractors are examples of . . .
   (a) modern machines used on farms.
   (b) irrigation systems seen on farms.
   (c) places with fish farms.
   (d) animal feed systems.

3. What does a water irrigation system do?
   (a) Control humidity
   (b) Send data to a satellite
   (c) Pick weeds and count crops
   (d) Bring water to crops

4. Greenhouses are necessary when . . .
   (a) crops have diseases.
   (b) it's very cold outside.
   (c) the work is repetitive.
   (d) the soil is too dry.

5. Today, only 2% of people are farmers because of . . .
   (a) better farm technology.
   (b) crop diseases.
   (c) a smaller population.
   (d) nutritious crops.

Key 1. (c) 2. (a) 3. (d) 4. (b) 5. (a)

Glossary

- **agricultural** (adj.) related to farming

- **barn** (n.) a building on a farm where animals are kept

- **drone** (n.) a flying machine without a pilot

- **endangered** (adj.) (of a species) rare because most of its kind have died or been killed

- **estimate** (v.) to make a guess about something