

## Journey 2050 Lesson 2: Plant Health Online Module

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1. Begin the [Journey 2050 Lesson 2: Online Module video](#) (0:00-5:44). This video will guide you through the lesson.
2. Watch the [Journey 2050: Nutrients](#) video.
  - a. *What three primary nutrients are necessary for healthy plant growth and how can they be replenished?*
  - b. *How does a plant resist disease and pests?*
  - c. *What are “best management practices?”*
  - d. *What are the 4Rs?*
3. Continue the [Journey 2050 Lesson 2: Online Module video](#) (5:53-12:34)
  - a. *Why does soil matter?*
4. Play Level 2 of the *Journey 2050 Sustainability Farming Game*. Continue the [Journey 2050 Lesson 2: Online Module video](#) (12:35-13:54) for instructions.
  - The game can be downloaded to devices from Google Play or the App Store. It can also be [played online](#) using a Firefox, Chrome, or Safari web browser.



5. Wrap-up. Continue the [Journey 2050 Lesson 2: Online Module video](#) (13:57-15:29). Answer the questions below and review the key points.

*a. Which nutrient practice was best?*

*b. If nutrients were over or under applied, what impacts did you notice on crop yields, environment or economics?*

*c. How can farmers be sure they are applying nutrients in a sustainable way?*

### **Key Points:**

- Agriculture provides our food supply. Growing our food requires the use of nutrients, which must be returned to the soil through proper application in order to continue growing healthy crops.
- Crops grown in soil without proper nutrients are less healthy, less resistant to insects and diseases, and produce a less abundant harvest than crops grown in nutrient-rich soil.
- When plant health is managed using best practices farmers can be more successful in harvesting an abundant crop of healthy foods.

### **Additional Activities:**

- Complete a [word search, crossword puzzle, or matching activity](#) to study the relevant vocabulary terms in the Journey 2050 program.