

Plant Nutrition Scenario Outline

- I. In this scenario, you will practice your science communication skills and demonstrate that your mastery of our plant nutrition concepts. Please pretend that you are part of the University of Minnesota Extension’s Nutrient Management team, a group whose mission is to help farmers and agricultural professionals optimize crop protection using appropriate nutrient inputs and minimizing impact on the environment. Your job requires you to share educational information with different agricultural producers and ensure they have the latest nutrient management information to best promote plant growth.

Each group of approximately 4 students will be assigned to a nutrient: nitrogen, phosphate, potassium, sulfur. Using Canva, please prepare a fact sheet for your assigned audience that gives them an in-depth overview of a specific nutrient. Be sure your fact sheet covers:

- A. An overview of your assigned nutrient
 - B. Deficiency symptoms
 - C. Common fertilizers
 - D. Best practices for application timing
 - E. Considerations for efficient application
 - F. Considerations for environmentally sound application
- II. Again, imagine you are part of the University of Minnesota Extension’s Nutrient Management team. Now, you must prepare a 5-7 minute informative presentation that shares a recommended fertilizer application plan for the year with a specific audience. [Potential audiences - corn growers, soybean producers, sugarbeet farmers, wheat growers].
 - III. For the final activity, students will share their informative presentations and factsheet handout with the class (in person - or via video) and prepare to answer difficult questions from the audience. As one team presents, another team will take on an assigned audience role (potential audiences from above - corn growers, soybean producers, sugarbeet farmers, wheat growers]. The “audience” team must ask questions during and after the presentation and the “presentation” team should have

prepared speaking notes and a key message document that can help guide their response to audience questions. Questions must cover one of these:

- A. How do we minimize cost, while maximizing output?
- B. What should (X growers) watch out for in particular this time of year?
- C. Do you recommend a soil or tissue test? Why or why not? (Explain value).
- D. What do you see as important challenges for next season and next year?

The class will vote on best fact sheet, best presentation, best Q&A performance.