



## Plants v. Profits

Grow, Profit, Win!

Can your team work together to earn the most money in the healthiest soil?

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1–5 Players | 40–60 min. | Ages 11+

**Background:** You have a 10×25' garden—about the size of an average living room. The local farmer's market has invited you and your team to sell produce!

You have unlimited money, so your only goal is to have more money at the end of each year. Be careful—only happy soil will make money for many years!

**Setup:** Spread the crop cards on the table so all players can see them. You may want to separate the cards with a green backdrop (🌱 cash crops) from cards with a brown backdrop (🌿 cover crops).

Make sure each player has a 📅 Planning Sheet and a 💰 Profit Sheet. You can print them at <https://pvp.cemastprojects.org/>.

If this is your first time playing, welcome! We suggest you read and complete each step before moving to the next one.

**Step 1: Choose 1–2 🌱🌿 Crop Cards. Record Termination Cost on the 📅 Planning Sheet if Needed (Year 2 and Beyond).** Each player can choose 1–2 crops to grow this year, but only harvest 1. It's okay if you can't predict how a crop will do—use Year 1 to experiment!

*In Year 2 and beyond, if you do not want to harvest a crop, you may terminate it. This allows you to stop a crop and plant a new one. (If you let a crop reach the end of its growth period, pay no termination cost.)*

*If you terminate, circle the \$20 cost on the Planning Sheet.*

**Step 2: Use the 📅 Planning Sheet to Verify Crop Timing and Record Seed Costs.** Shade in the color-shifting boxes on the Planning Sheet to show each half month of crop growth. (Planting and harvesting dates are on the upper left of each crop card.) If a crop is still growing at the end of the year, follow the rainbow to shade in the boxes for next year.

You cannot have 2 crops growing at the same time.

Record **seed cost(s)** on the Planning Sheet in the month you plant it. Seed cost is in the top right corner of each crop card.

**Step 3: Record Harvest Cost on the 📅 Planning Sheet for 1 Crop Per Year.** If you harvest a crop, record its **harvest cost** on the Planning Sheet. It is next to the photo on the crop card. Write the cost in the month the crop will finish growing.

**Step 4: Record Tillage Costs on the 📅 Planning Sheet and Yield on the 💰 Profit Sheet.** Look at the crop card you are harvesting. Compare the yield for each till option. Make a choice and write the **tillage cost** on your Planning Sheet in the month you plant it.

Tillage prepares the land for crops by:

- Full-Till: Turning up all the soil
- Low-Till: Breaking up soil only where the seeds go
- No-Till: Not disturbing the soil at all

With tillage in mind, write the yield and market price for your harvested crop in Step 2 of your Profit Sheet.

**Step 5: Calculate Revenue, Total Cost, and Profit on the 💰 Profit Sheet.** To find out your profit and soil health, work your way from the top to the bottom of the Profit Sheet. When you finish, put your crop cards back in the middle of the table.

**Step 6: Collect 😞 Sad Soil using the 💰 Profit Sheet.** Keep your sad soil tokens—you will add to them each year.

**Step 7: Share Your Results with Your Team.** What crops

performed well? What effect did soil health have on their success?

**Step 8: Repeat.** Repeat Steps 1–7 for three more years. Remember, you can choose to terminate to plant a cash crop earlier.

**Step 9: Calculate Total Profit and End Soil Health.** Finally, add each year's profit to find how much money you made! How healthy is your soil?

If your team is competing with another, average all your team members' soil health at the end of the game. Also average all team members' profits.

Compare your team's averages with other teams.

- Who won based on soil health?
- Who won based on profit?

#### **Food for Thought:**

1. Not all of the crops in this game will make money. Usually this is because harvest costs are too high. Would these crops make money if you were harvesting with a machine instead of by hand?
2. What was the best benefit brought by cover crops? (What is a cover crop?)
3. To simplify the game, there is no way to restore soil health. What can farmers do to restore soil health in the real world?
4. This game does not consider weather. Could weather affect yield? Market price? Costs?