

## Farmer Game Instructions:

Go to the website <https://stat2games.sites.grinnell.edu> and select the **Farmer Tab**. You will see a picture of the game on the left and function buttons on the right. You can then click the **Play Famer** button to start game.

**This site may take a few minutes to load.**



- Enter a **Player ID** and a **Group ID**. Any combination of alpha-numeric characters will work. *Note that this ID will be public on the web.*
- Click the pink "Tutorial" button to start the tutorial:
- Click the pink "New Game" button to start a new game:
- Click the pink "Load Game" button to continue a saved game:

Clicking "Tutorial" will bring you to the game page. There is a tutorial that introduces you to the functionality of UI and how to play the game.

- Follow instructions that appear on the scene to play.
- After finishing the tutorial, you can click Exit to the main scene.



**Goal:** Plant and grow crops in different seasons and sell them to earn money. After earned certain amount of money, you can finish the quests and earn rewards.



**Quest:** Click on the box icon on the top right of the scene. A small scene will pop up and show you the current quest and its reward. After you finished the quest, you can click the "Claim" icon at the bottom of the small scene. Typically, the rewards are fixed amounts of coins.



**Mute:** On the middle-left corner, the **Mute** button will show your current sound level.

**Save:** On the upper left, click on the save button to save your game progress. As your progress is saved successfully, the button will show "Saved!" text on it.

**Menu:** Above the Save button, the menu will take you back to the main scene. Before going back to the main scene, you will be prompted to save your progress and confirm.

**Coins/Weather/inventory:** The three-status bar panel indicates:



- The number of coins the player has left.
- Current precipitation
- Season counter that tells how many seasons you have passed.



The items you have, include seeds, corn, and watering cans.

**Market:** You can control your avatar to enter the market on the top right. In the market, you can buy or sell corns and seeds you like. Remember that you can only store a fixed number of items in your inventory so if you cannot store more stuff you may go to market to sell some of them.



### Epidemic Variable Descriptions:

Variable Name	Type	Description
Game:	Integer	Each game is assigned a unique game number
Date	Date	The date and time the game was played
PlayerID	Categorical	Any alpha-numeric term used for each player
GroupID	Categorical	Any alpha-numeric term used for each player or group. Often instructors ask all students in the class to use the same GroupID
Potential response variables		
Season	Quantitative	The current number of seasons the player has passed
Rain	Quantitative	The amount of rainfall
Health	Quantitative	The health of the player after a certain wave
Potential explanatory variables		
Money	Quantitative	The coins players have
Plots	Quantitative	The number of plots the player planted in the current season
Crop	Categorical	The type of crop the player selected in a particular plot
PriorHarvest	Categorical	The type of crop player selected in a particular plot in the last season
WaterAdded	Quantitative	The amount of water the player added to a plot during one season
TotalWater	Quantitative	The amount total in a plot during one season
NitrateLevel	Quantitative	The nitrate level in a plot during one season
Yield	Quantitative	The yield rate for corn or other crops

**Sample student handouts, instructor notes, and research activities** are available here:

<https://drive.google.com/drive/folders/1UyMtxFthjD57UyssqUL1poXbmlRxI1ZM>

### Potential Research Questions:

Which planting pattern is most effective to earn coins?

What time should you sell or buy seeds or corn?

What plants are most economical in times of drought?

What is the optimal amount of water for corn yield?