



The Bioenergy Farm Game

Wild Cards



Start

Year 1: Choose which crops you want to plant. Decide how many fields of each crop you'd like to plant (for a total of five fields). Take the appropriate number of crop cards and note the number of fields on your scoresheet.

Years 2-4: Now is your opportunity to switch your current crops for new ones if you would like.

Remember that you can't harvest perennial crops until the 2nd year.

Winter Vacation

Hot cocoa, cookies, warm fires and bowling league time!

Wait here until all players have gone around the board. As you wait, "bowl" for income points (roll even for 1 income point and odd for 0.5 income points).

When all players have gone around, move as a group to the start square.



Refer to the information on your crop card to calculate your income and e-points.



Perennial plants turn brown, and nutrients return to the roots before harvesting crops so you will need less fertilizer next spring. Gain 0.5 income points and 1 e-point for each perennial crop field that will be harvested.



You decide to leave a some stubble on your corn field that attracts wildlife and adds carbon to your soil. Gain 1 e-point for each corn field.



Refer to the information on your crop card to calculate your income and e-points.



You turn one of your fields into a corn maze which brings lots of visitors to your farm. Gain 1 income point if you have at least 1 corn field.



Local hunters are looking to rent land that provides a good wildlife habitat. Receive 1 income point and 1 e-point for each field of native grassland.



It is a beautiful, sunny, early fall day. Gain 2 e-points and 1 income point because your crops are taking carbon dioxide out of the atmosphere through photosynthesis.



Heavy rains! For each grassy crop field by the stream, gain 2 e-points for preventing runoff. For each corn field by the stream lose 2 e-points for soil erosion into the stream causing water pollution.



With high gas prices, biofuel refineries demand more bioenergy crops. Earn 3 income points.



Insects attack your corn fields! Refer to your corn crop cards to assess the impacts on your farm.



A new pest appears on your farm. Luckily, a predatory wasp is found in switchgrass and native grassland. Gain 1 income and e-point for each of these crop fields. For other fields, lose 1 income and e-point for spraying pesticides.



It is a dry summer and your corn crops need more water. Lose 0.5 income and 0.5 e-points per corn field for the extra watering.



An insect pest is munching your grassy crops! Refer to your crop cards to assess the impacts.



You have a week of soaking rains followed by a week of sun. Your crops flourish. Gain 3 income and 3 e-points.



A late frost damages young corn and miscanthus plants. Lose 0.5 income and 0.5 e-points for each miscanthus field.



Rain, rain, go away! Your fields are under water. Refer to your crop cards to assess the flood damage.



Heavy rains hit after spraying pesticides. Lose 1 e-point for each corn field and 0.5 e-points for every other field because the chemicals have leached into the soil.



Bees are buzzing! If you have grassy fields next to your orchard, they will pollinate the flowers. Gain 2 income points for the apples and 2 e-points for providing a habitat.



For each of your fields that you didn't have to plant this season, gain 1 income point to plant a vegetable garden to sell vegetables at the farmers' market.



STOP! Refer to your crop cards to determine crop costs that perennial crop costs change after the first year.



Tractor Repairs! For each corn field, pay 1 income point and 1 e-point. Pay 0.5 income points and 0.5 e-points for other crop fields.



Buy chemicals (fertilizer, insecticides, herbicides) for your fields. Refer to the crop cards to determine costs.



You decide to skip tilling your field which releases less carbon dioxide into the atmosphere. Gain 1 e-point for each field that you are planting this season.



Perennial crops from last year start growing. Earn 1 e-point for each field that is already taking carbon dioxide out of the air through photosynthesis.

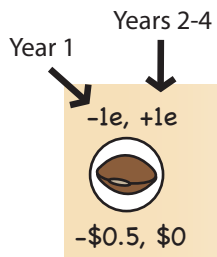
CARD KEY

- Chemical
- Planting
- Harvest
- Drought
- Flood
- Insect Infestation

INTERPRETING CARDS

Example: If you land on a "Planting" space, refer to your crop card to determine how many Income (\$) points or environment (e) points you gain or lose for year 1 or years 2-4.

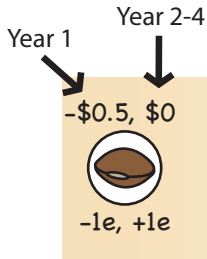
For the example at left, you lose 1 environment point in year 1, but gain 1 e-point in years 2-4.





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INTERPRETING CARDS



Example: If you land on a "Planting" space, refer to your crop card to determine how many Income (\$) pints or environment (e) points you gain or lose for year 1 or years 2-4.

For the example at left, you lose 1 environment point in year 1, but gain 1 e-point in years 2-4.

CARD KEY



- Chemical



- Planting



- Harvest



- Drought



- Flood



- Corn/Grass Pest