

The Hay Game¹

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What is the Hay Game? You have to play the Hay Game several times to improve your score. Always record your score. The score of your *first* game is the most important one. At the end of the simulation, check on the graphical pattern of your performance.

How to play the Hay Game? You are the manager of a farm. Each week there is a consumption of hay bales (1 bale = 1 ton in the simulation model) by your animals. The number of hay bales consumed will vary depending on the week. Your animals will receive the hay bales from the storage if you have enough, otherwise you will begin running a negative storage. In this case, you have to buy hay bales from your friend neighbor.

Obviously, you'd like to keep enough hay bales in the storage to meet the requirements of the animals of your farm. You order your hay bales from a hay-producing farm; you can order as many hay bales as you would like or judge necessary each week. In fact, ordering hay bales is the *only* decision you make in the Hay Game.

The order you place on the hay-producing farm takes two weeks to be harvested and baled. When all is ready, the hay bales are loaded onto trucks (or any other transportation method), which then will start off toward you farm. After two weeks in transit, the truck will unload the hay bales into your storage.

What is the objective of the Hay Game? Your goal is to keep costs as low as you can. You will be charged fifty cents (\$0.50) per week for each hay bale (ton) you have in the storage. You will be charged one dollar (\$1.00) per week for each "negative" hay bale (ton) in the storage. Imagine the "negative" hay bale means you have to buy hay bales from your neighbor, and s/he charged you a little bit more to offset extra costs.

For instance, if you keep 12 hay bales in the storage, you will be charged \$6 dollars per week. After 2 weeks your cost would be \$12; after 20 weeks your cost would be \$120 (= 20*6). The fifty cent per week charge on storage represents your cost for the space, maintenance, cleaning, etc.

At this point, it probably sounds like you'd like to keep zero hay bales in the storage, but then you risk running out of hay bales and getting a backlog ("negative" hay bales = borrow from your friend neighbor). *Backlog* costs you one

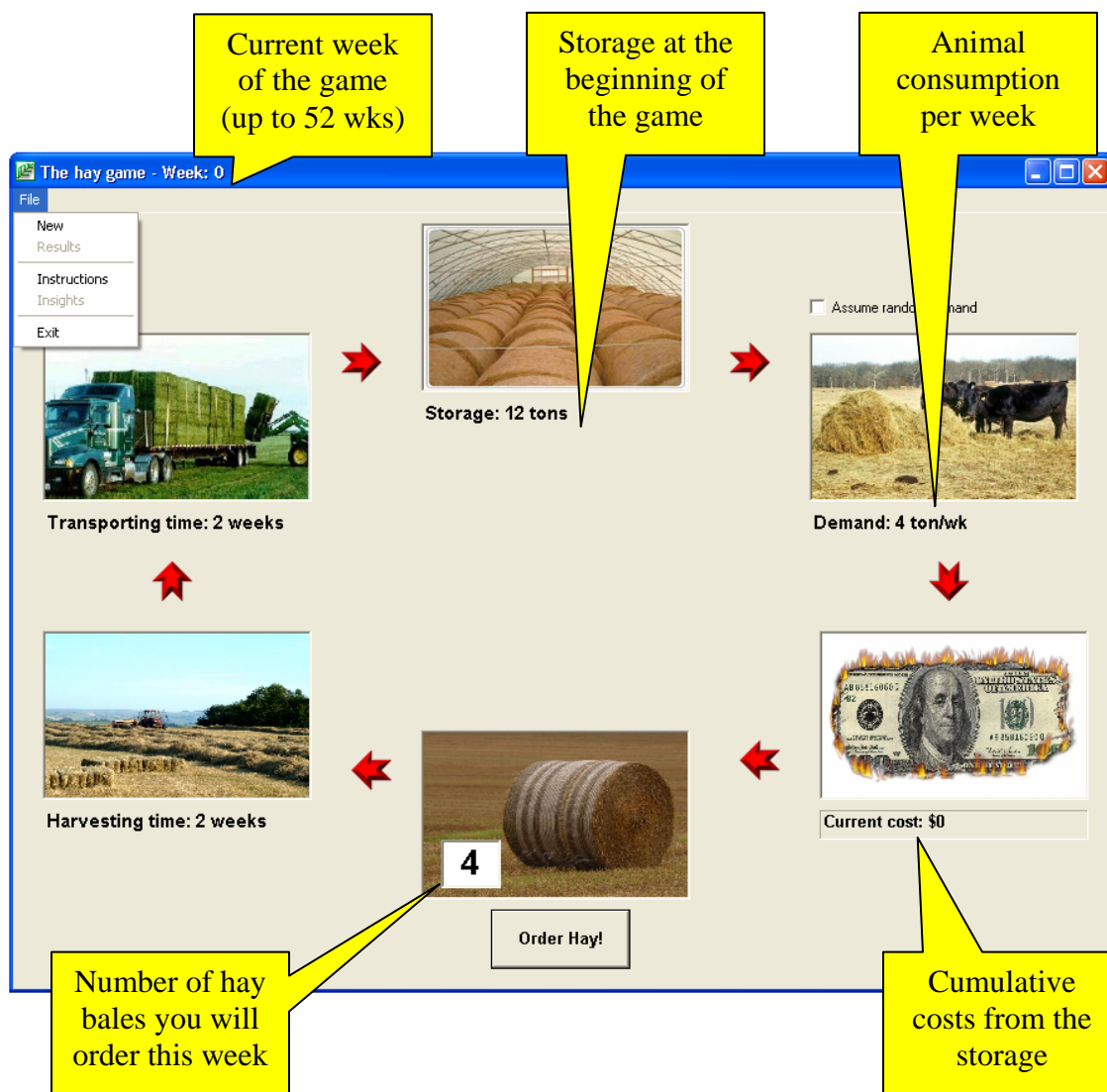
¹ The Hay Game was based on the "The Beer Game Game" by Jim Hines from MIT.

dollar (\$1.00) per week for every hay bale. If you have 12 hay bales backlogged (representing 12 hay bales that you are unable to feed the animals) for one week, you'll be charged \$12. After 2 weeks you will have accumulated a charge of \$24 and after 20 wks you'll be looking at a total bill from the backlog of \$240.

Here is a summary of the costs:

| Storage | Cost per week |
|----------------------------------------------|---------------|
| Positive hay bales | \$ 0.50 |
| "Negative" hay bales (=borrow from neighbor) | \$ 1.00 |

The Hay Game screen: When you first start, the Hay Game screen looks like:



What else? After you have mastered the basics of the Hay Game, turn on the "Assume random demand" and check out your performance. Good Luck!