



Harvesting is Everything

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This teaching resource is allocated to following University:

BOKU - University of Natural Resources and Life Sciences Vienna

Institution:

Department of Applied Genetics and Cell Biology (BOKU Vienna)

<http://www.sustainicum.at/en/modules/view/169.Harvesting-is-Everything>



Group work



**Less than 5
students
5 to 10 students**



**Up to 3 lecture
units**



English, German

"Harvesting is Everything" is a card game, an introduction to agricultural planning with ecological and economical considerations. Its main message is sustainability!

☐☐☐Suitable for: > 8 years

Number of players: 2-6

Charakteristics: trains foresighted action, logical thinking

This game is meant to reach, in an entertaining manner, the diversity of and interconnection between the plant and animal kingdom. It shall also reveal how knowledge about the relations between plants, pests and beneficial organisms can be employed in biological gardening. No chemicals, no hazards!

The cards are attached as PDF documents. The cards are best printed on a sturdy paper and with the printer set to print 16 to a page. Doing so insures that they will be the same size as normal playing cards. After printing, the 16 cards should be cut out.

Game Rules

This game contains the following cards: 150 (green) cards displaying plants, 45 (red) cards displaying pests/diseases, 15 (blue) cards displaying beneficial organisms and 14 (yellow) "event cards".

The cards are sorted by category (green, red, blue) into three piles. The yellow cards (random events) are mixed into the pile containing green cards.

Each player strives to grow, protect and harvest plants. Pest attacks by other players can be prevented if the "attacked" player has a corresponding beneficial organism. On the other hand, a player can attack plants growing on another player's field (and thereby collect points).

Preparation: Each player is provided with the following: a BARN, a Four-Field-sheet and (upside-down!) 5 green, 3 red and 2 blue cards. The remaining cards (upside-down!), are placed as three separate piles (see rule 1) onto the table.

The game moves in a clock-wise fashion.

The player to act either plays ONE green or ONE red card and subsequently takes one card of the same type (green or red) from the corresponding draw pile. In case he/she draws a yellow card (randomly occurring "event card" from the green pile), the card is disclosed to all players. The player to act draws another card from the green pile. This is to ensure that throughout the game each player has a constant number and type of

Growing plants

Players grow plants by placing green cards onto their "fields". Plants can only be grown on the respective field types (flowers, fruits, vegetables or wood). Each player has four fields i.e. one of each type, onto which he/she can place green plant cards. One plant card can be played per round.

Harvest

A player can "harvest" as soon as there are 3, 4 or 5 plant cards on one of his/her four fields. "Harvested cards" are collected in his/her individual barn. For the harvest of 3 or 4 plants of the same category the player gets one extra point (tally sheet); harvesting 5 plant cards (same category) yields 2 extra points. Thus, more extra points are obtained when harvesting 5 plants. However, there is an elevated risk of harvest loss caused by pest attacks from other players or by adverse climate events. Once successfully harvested into the barn, plants are safe from attacks or events.

Pest attack by other players

Alternatively to growing plants on his/her field, a player may attack (using a red schädlings card) plants that are currently growing on another player's field. The attacker thereby transfers all corresponding plant cards of the attacked player's field(s) into his/her own barn - irrespective of the plant card number and category. In case the attacked player has a suitable beneficial organism (blue card), he/she can prevent the attack. In this case, the pair of cards (pest and beneficial organism) is put aside (inactive), and all plants remain unaffected on the field. The players involved draw another pest or beneficial organism card, respectively, to ensure constant number and type of cards.

Example: The player to act is player A. On the fields of player B, there are currently two lettuce and one potato plant. Player A decides to attack B, by placing a slug onto player B's vegetable field. Scenario 1) In case B has no suitable beneficial organism to protect his plants with, the two lettuce are collected into player A's barn. Player A takes another pest (red card). The game continues with the next player to act.

Scenario 2) Player B prevents the slug attack by placing a suitable beneficial organism, e.g. a hedgehog. Slug and hedgehog are removed (inactive) from the game, and player's B lettuce remains on the field. Player A draws another pest, while B draws another beneficial organism card. The game continues with the next player to act.

Event cards

Event cards (yellow) occur randomly within the green pile of plant cards. They represent negative (climatic adversities, skull symbol) or positive (sales-rising actions) events. Each event card affects only those plants that are laying on any player's fields, i.e. not those in the barn or in the player's hands. When a player happens to take an event card (from the green pile), he puts it down on the table, visible to all players. The event's effect is immediate and applies to all players. The corresponding plants that are affected are listed on each event card. Negative events (skull) lead to harvest loss, meaning that affected plants laying on any player's fields are removed from the game. Positive events mean interim harvest, i.e. each player can collect event-affected plants from his/her field(s) into his/her barn. In contrast to the regular harvest (see above) no extra points are given for transferring three or more plants into the barn. The advantage of positive events is that - irrespective of number and type - plants can be harvested immediately. After all players have acted according to the event, the player who had drawn the event card will draw another card from the green pile (to have a constant number of plant cards again). The game continues with the next player to act.

End of the game

The game is over when one of the three card piles (green, red or blue) is finished. Plant cards in each player's barn are counted, and added to the

extra points (from the tally list). Any remaining cards (i.e. laying on the fields, in the players' hands, or remaining on the original pile) are not considered in the calculation. The winner is the player with the highest number of points.

Layout plant cards:

Name of plant, foto. Underneath the foto: name of pest and corresponding beneficial organism.

Layout pest card:

Name of pest, foto. Underneath the foto: name of plants that can be attacked by this pest. Name of beneficial organisms that can prevent pest attack.

Layout beneficial organism cards

Name of beneficial organism, foto. Underneath the foto: name of pest that can be inactivated. Name of plants that can thereby be protected.

All plant cards and names are consistently coloured in green. Pests in red and beneficial organisms in blue.

Teaching Tools & Methods



Game

Learning Outcomes

- learning the non-chemical control of plant pests/diseases
- learning effects of climatic adversities on agriculture
- suitable also for school classes

Relevance for Sustainability

Sustainability is the main message of this card game.

Related Teaching Resources

No specific previous knowledge / related resources required

Preparation Efforts

Low

Access

Free

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