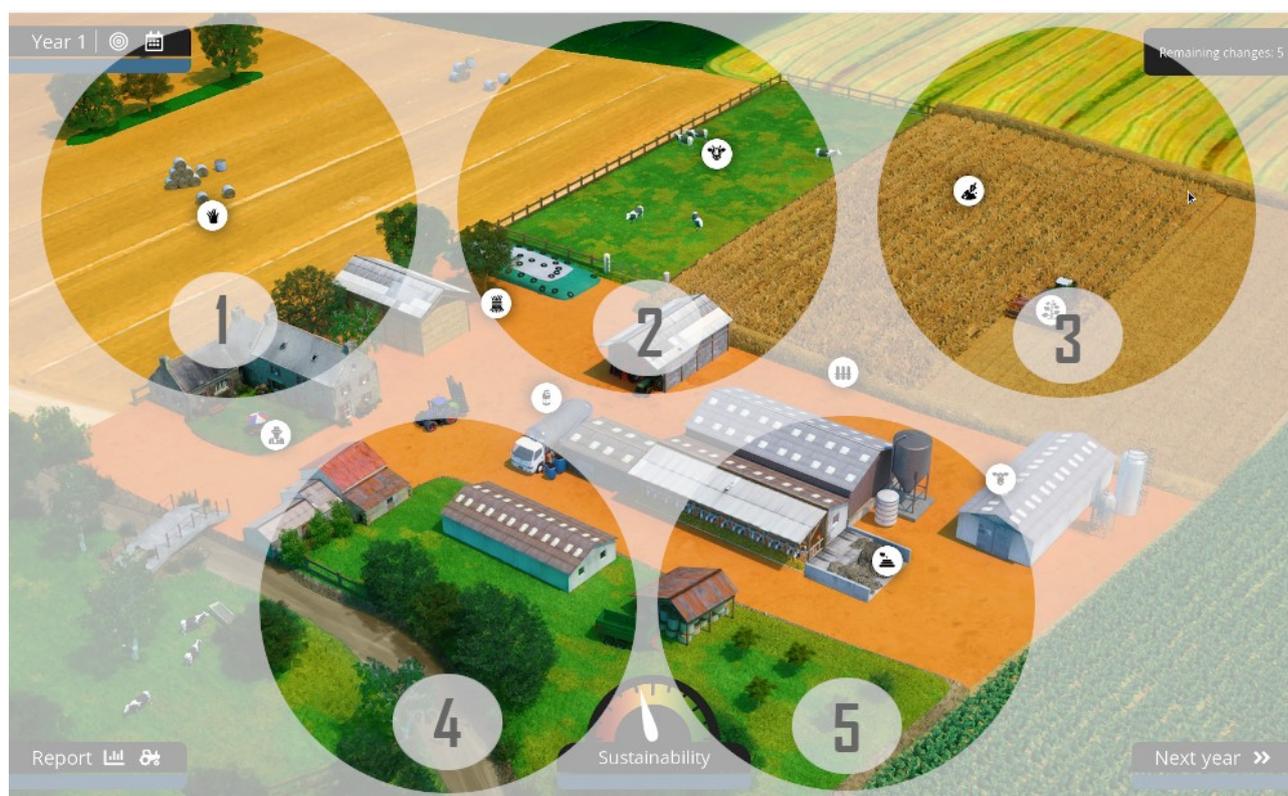


SEGAE

SERious Game in AgroEcology tutorial



Index

1. Game principles.....	2
2. Game interface.....	3
3. Overview of practices.....	3
3. General presentation of SEGAE.....	5
4. Other informations.....	5

Game : <https://succubus.cleverapps.io/livraison/segae/app/>

Tutorial : <http://mc.wipie.ur.krakow.pl/segae/>

1. Game principles

SEGAE is a turn-based game. As a "serious game", it aims to show how you can change a conventional farm to an ecological one. The farm being the subject of changes conducts cattle breeding and crop production. The game is intended for people who have at least a basic knowledge of issues related to farm management.

After completing the actions, the player, going to the next year (i.e. the game round), can see the effects of his actions, and analyze in detail: what has changed, how it has changed and why it has changed.

Depending on the scenario, the goal of the game may be to achieve the goals set or to obtain the highest game score. The game score can be compared with other players.



2. Game interface

The game interface is located on this board.



In the lower left corner there are detailed reports regarding a given stage of the game. This is information about the farm and about actions (e.g. agroecological practices) taken in the current and previous years.

The lower right corner allows you to go to the next year, i.e. the next game round.



At the bottom, in the center of the screen is a cumulative indicator of sustainability. This indicator consists of three components, i.e. economic, environmental and social balancing. You can also check what influences these indicators at any time.



The player has the ability to conduct various activities (practices) that should have the desired effect. The buttons enabling these changes are placed in different places of the board in an intuitive way and marked with appropriate pictograms. There are 10 areas on the board that allow you to enter various activities - in a few cases, access to the same activities is in several places (e.g. cow feeding system in the "feeding system" and "cows").

3. Overview of practices

1.  Strategic decisions - here the player can decide on the type of production, distribution of profit from operations, as well as change the breed of cows and herd size. Each time, after selecting an action, on the right you can check how indicators have changed depending on the decision made since you've started the game.
2.  Land use management - in this tab you can select crop rotation and how to use green areas (permanent and temporary)
3.  Feeding system - here you can choose the feeding system for cows and heifers. It should be borne in mind that the feeding system should be consistent with the plant production (and therefore these changes can also be made here).
4.  Cows - it is a tab where you can change the type of keeping, the feeding system, introduce additional concentrated feeds that increase milk production and determine how to prevent mastitis.
5.  Soil management - here you can specify soil cultivation and straw management
6.  Plant production management - this is the place where the fertilization method, the level of chemical protection of plants and other parameters affecting plant production are determined.
7.  Landscape management - here you can specify the type of green infrastructure and tree cover (agroforestry).
8.  Heifers and fattening cattle - this is the place where you can change the system for maintaining heifers and bulls, their feeding system and the way of managing these groups of animals.
9.  Fertilization - here you can change the method of fertilization and manure production, which is a consequence of the way animals are kept.
10.  Warehouse - the last button gives no possibility of introducing changes, but it is a place where you can check the important indicators characterizing the production on the farm. These include: profits and costs, subsidies, sales of plant and animal production or labor inputs.

This interface allows for easy and intuitive changes in the game and then checking the effects and detailed analysis of the consequences of decisions made.

3. General presentation of SEGAE

4. Other informations