



TO TRAIN BY PLAYING, TO PLAY BY TRAINING

Why play? Playing is a way to encourage reflection or learning alone or in a group, in competition or not.

Who can play? Actors, learners, facilitators, advisers, technicians or teachers... anyone who does co-design of cropping systems in their activities!

In what framework? Alone or in groups, as part of support for groups of farmers, training, school interventions from basic levels to agricultural engineering schools or universities. Thus the game can be used in the context of training or group activities. The game also facilitates exchanges and the sharing of experiences. It also means doing useful objectives during a play.

DID YOU KNOW?

GAMAE is a French platform of resources (scientific and technical) dedicated to serious games in the field of agriculture, food, environment and territorial development (AFETD). Based in Clermont-Ferrand, within the UMR Territoires, it aims to highlight serious games in AFETD, to facilitate their design and use and to scientifically assess their relevance.

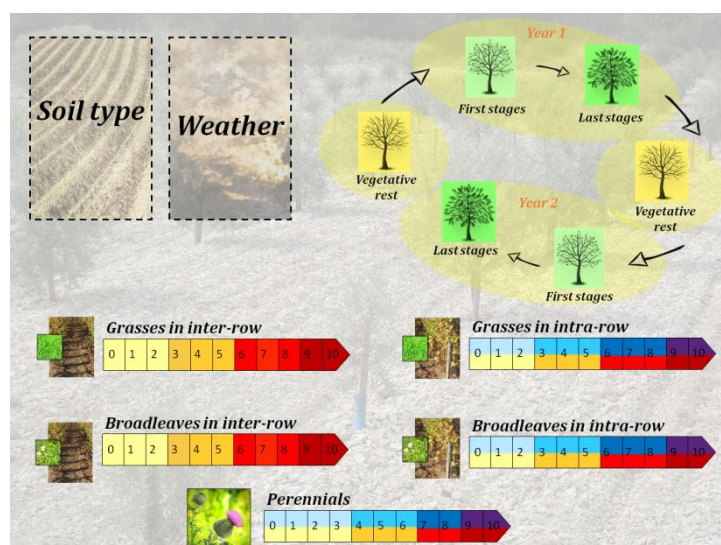
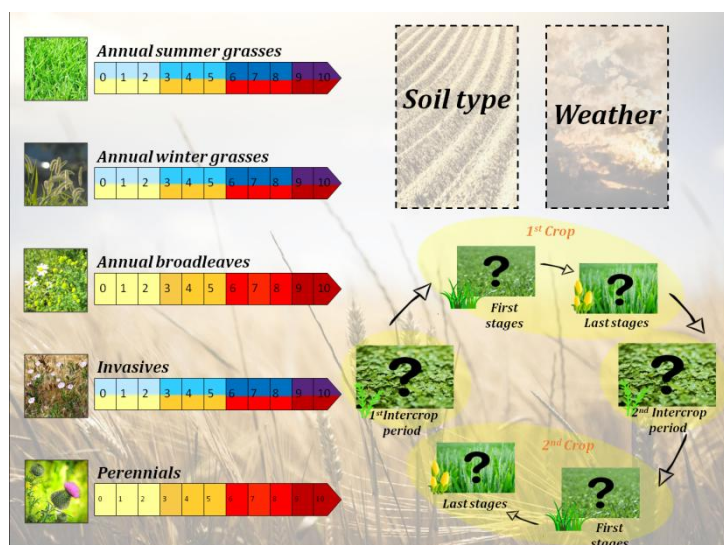


A GAME TO BETTER UNDERSTAND THE COMBINATION OF WEED MANAGEMENT METHODS

The ACTA team has developed a game as part of the IWMPRAISE project. This is based on the evolution of weeds according to climatic and agronomic factors, by following the cycle of crops and rotations. Players must make decisions based on this development. They will be divided into two or more teams.

Objective: optimise production by avoiding competition from 5 groups of weeds and minimizing health and

environmental impacts. Two versions are proposed: one concerning arable crops with a rotation of two crops and one concerning perennial crops over two seasons. Thus the game takes place over 6 rounds where two or three teams (farmers, advisers, students, etc.) compete. Each turn, a weather card is drawn: it will partly affect the evolution of weeds. The other parameter affecting this evolution is the period of the crop cycle.



Figures 1 and 2 – Game boards for arable crops (left) and perennial crops (right).

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Each team chooses the methods that can be used in the period concerned, within the limit of the time available in each round (6 units per round of the game) and the owned units of money (20 units for the game). These methods will have a preventive (the next round) or curative (the round itself) effect on the development of

weeds. Each method has a cost (in units of time and money) and can be effective or not on each group of weeds. Each method has an effect on 4 parameters related to health and environment (Figure 4). The control of weeds is essential to avoid quantitative or qualitative losses at harvest (Figure 5).

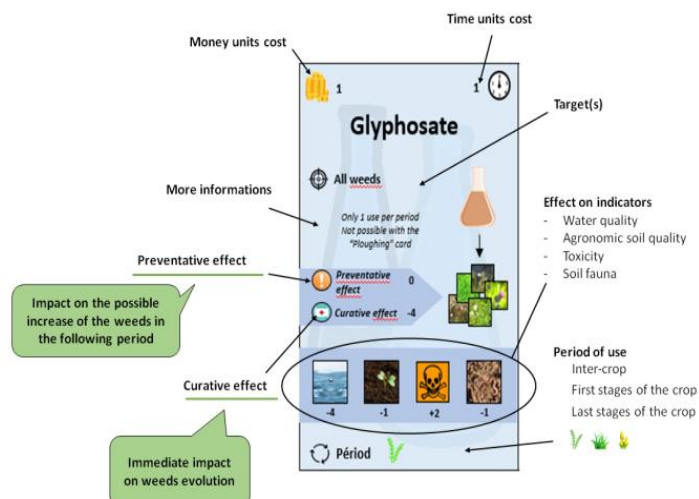


Figure 3 – Method cards and parameters.

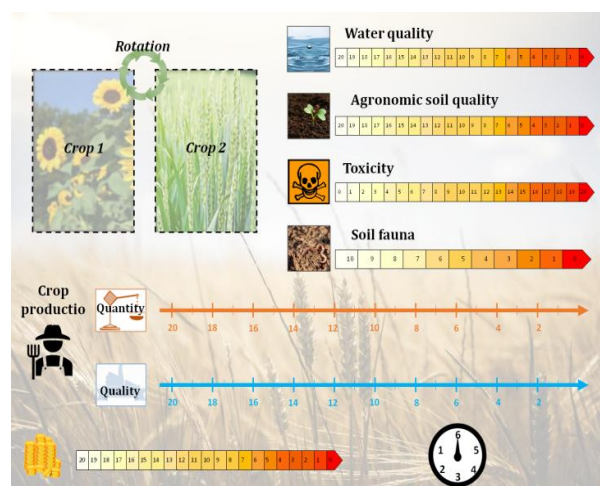


Figure 4 – "Health & Environment" parameters.



Figure 5 – "Quality" and "quantity" production scales.

A game is played in about 1 hour and 30 minutes but can be used as part of a larger training or animation session. Two versions are available for each game, in French and in English. You can access them clicking the picture on the right or clicking this link: <https://iwmpraise.eu/iwm-game-for-perennial-crops>. Translations into other languages will be offered in the future.

REFERENCES

- Dernas S., Martel G., Revalo A., Terrier M. Rapport d'enquête GAMAE 2021 https://www.researchgate.net/publication/356604324_Rapport_d%27enquete_GAMAE_2021
- Delval Ph., Former en jouant, jouer en formant – Dossier EcophytoPIC <https://ecophytopic.fr/pic/pour-aller-plus-loin/former-en-jouant-jouer-en-formant>



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