



The Harmony Charter

Example for harvest 2018 in France

THE CHOICE OF AGRICULTURAL PLOTS AND THE SOWING OF THE CROPS

1. Choose the wheat plots according to the [preceding crops](#), the wheat varieties and the type of [soil preparation](#) in order to ensure the health and safety of Harmony's wheats and limit further fungicide treatments, especially against [fusarium](#).
2. Use wheat seeds that comply with current legislation relating to non-GMO origin and are certified, or « farm-saved seeds » (i.e. directly produced from certified seeds) recommended for their resistance against disease et suitable for the manufacturing of our biscuits.
3. Adapt the sowing dates and seed density using decision-making tools in order to optimise culture conditions and limit treatments.
4. On a given plot, do a rotation of at least 4 crops over 5 years and limit the percentage of wheat-on-wheat to 10% maximum at the miller level in order to limit the development of parasites.
5. Preserve [local biodiversity](#) by assigning 3% of Harmony wheat plots to a melliferous pasture for [pollinator insects](#), either planted in an area directly adjacent to the Harmony plot or on a non-used plot, or by implementing an [inter-season crop](#) on the whole area planted with Harmony wheat before a spring crop, or eventually by planting a hedge. Farmers that do [direct sowing under cover](#) are exempted from this practice.
6. Preserve biodiversity at territorial level by choosing and implementing one of the 7 following actions: implement wild bee nest, collaborate with a beekeeper, implement one or more insect hotels alongside fields, implement perches meters around the plots or opt for natural perches, perform earth worm counting, perform 3 butterfly field counts in the bee pasture, or eventually, use a scaring system during harvest
7. Plant a cover crop or an inter-season crop to cover the soil during autumn, and thus preserve it.

LA NUTRITION DE LA CULTURE

8. Every 6 years, carry out chemical analysis of the soil and wheat plots in order to reason the application of fertilisers according to the nutritional potential of the plots.
9. Define a [Provisional Manuring Plan](#) by using precision tools in order to optimise wheat culture while preserving in the long run soil quality and fertility.
10. Adjust the planned nitrogen dose resorting to analyses of the nitrogen residue remaining after winter or any equivalent analysis.
11. Use a management tool to manage fertilisation for 30% of farmers per storage body.
12. Ban on urban sludge originating from purification plants. Agricultural waste and sludge originating from industries such as the sugar and potato industries are still authorised.

CROP HEALTH

13. Reason the use of [phytosanitary products](#) in order to treat only when really needed and instead favour strategies reducing pest pressure such as : the choice of varieties resistant to foliar diseases or eyespot, the choice of specific agronomic practices (stale seedbed, staggered sowing dates, occasional ploughing, companion plants...), or eventually using a management tool to take action at the right time.
14. Preserve pollinator insects by doing no treatment on the bee pasture.
15. Preserve pollinator insects by doing no insecticide treatment on the crop adjacent to the flowering bee pasture (except for [bee-friendly molecules](#) and only at sunset) nor acaricide treatment during the foraging time.
16. Take meteorological conditions into account before any treatment of the plots in order to reduce the risks of dispersion.
17. When choosing active materials, use the product with the least impact on the health of the person applying it and on fauna and flora, and prohibit the use of chemical products with specific R-phrases
18. Limit the use of growth regulators by preventing the risks from the beginning (variety choice, soil type, seed density and sowing date), and by prohibiting growth regulators for 20% of Harmony plots per storage body.



19. Have a plant health product store that complies with the regulations in force. Plant health products must be kept there in their original packaging, with their labels.
20. Get rid of tank bottom sludge and rinsing waters thanks to adapted filtering systems (biofilter or biobed) in order to limit these risks of environmental contamination.
21. Spraying equipment for treatments must be maintained, adjusted and rinsed properly before each use, and a self-inspection must be performed and its results recorded at least once a year in addition to the regulatory requirement for a third-party inspection every 5 year.
22. Have a system that avoids contamination of the water source used for filling the sprayer, in accordance with regulation.
23. Offer farmers alternative solutions such as biologic control or biostimulant product when existing and conduct an end-of-campaign assessment of their use and efficiency.

IRRIGATION

24. Use reasoned irrigation methods by assessing local climatic conditions, water reserves and actual plant's needs, et record the volume of water used, as well as the justification, in the [plot record](#) (soil data, warning notices, ...) in order to ensure an optimal resource management

WASTE MANAGEMENT

25. The storage body must help the farmers to collect wastes: Empty packaging of plant health products (EVPP), Personal Protective Equipment (PPE), unusable plant health products (PPNU), oil wasted batteries...

STORAGE & TRANSPORT

26. Use ventilated and clean storage cells only to reduce the risks of insect or fungus.
27. When storing wheat on farm, record changes in grain storage temperature every month from the harvest to limit the risks of insect or fungus contamination.
28. Insect control must not be performed for Harmony wheat. Insects should preferably be eliminated by sieving and aspiration. If this is not enough, in exceptional cases, an exemption may be granted.
29. Prohibit any treatment of transport means before loading them with Harmony wheat or flour, et use clean trucks or tankers to eliminate all risks of damage to the harvest.

TRACEABILITY

30. Clearly identify the batches of raw materials intended for Mondelēz International and physically separate to prevent any mix with non-Harmony material.
31. Send the list of farmers and the information related to their plot to Mondelēz International in order to guarantee traceability at each step of the value chain and organise audits.
32. Record every information related to the plot (surface, preceding crops, wheat varieties, ...), every action taken and their justification, and every information related to the exploitation and the use of decision-making tools in order to calculate agri-environmental indicators for each Harmony plot.

PEOPLE

33. Provide the farmers with every needed information for a good understanding and application of the Harmony Charter, in addition to the support of the technical service support, and train and raise awareness of good agricultural practices.
34. At least once a year, the farmer must attend information days, technical meetings and technical visits organised by the storage body, focused on alternative and innovative techniques.



GLOSSARY

- **Preceding crops:** The preceding crop is, as its name suggest, the crop preceding the Harmony wheat. Choosing a plot according to its preceding crop may allow to reduce the development of diseases (as some preceding crops can leave contaminated residues in the soil).
- **Soil preparation:** We call soil preparation the action of preparing a plot before sowing. There are different ways to prepare the soil, here are some examples: tillage which consists in overturning the soil quite deeply, ploughing in which is a less deep tillage, or non-tillage. These several actions can have impacts on soil biodiversity or the presence of residues from the preceding crop.
- **Fusarium:** Fusarium is a disease which affects mostly cereals such as wheat. It comes from a fungus called fusarium which is able to cause grain decay, and thus a partial loss of the harvest. Some are also able to produce mycotoxins, pathogens whose threshold is regulated. Several factors can influence the presence of this disease, such as more or-less resistant wheat variety, the preceding crop, the soil preparation and the climatic conditions.
- **Local biodiversity:** The word biodiversity comes from the contraction between Bio (life) and Diversity. Thus, it stands for all the living beings. We speak of local or ordinary biodiversity to refer to all the species we live next to, but that we do not necessarily notice, such as bees, butterflies, birds... still these species provide us with essential services such as the production of fruits and vegetables that we eat every day.
- **Pollinator insect:** A pollinator insect is an insect (bee, butterfly, bumblebee...) which will get covered unwittingly by pollen when landing on a flower and will drop when landing on another flower: that is the principle of pollination. This pollen will allow the fecundation of an egg, and then the formation of a fruit containing seeds. Accord to a study led by INRA, more than a third of what we eat depends directly on pollinator insects. This dependence concerns many fruits and vegetables, such as tomatoes, watermelons, strawberries, zucchinis, cocoa...
- **Inter-season crop:** The inter-season crops are planted between two cultures when the soil is not used in order to prevent from letting it uncovered during winter. They have many interests: nitrate trap, erosion control, weed presence or biodiversity preservation: the inter-season crops are shelters for partridges, hares, as well as source of food for pollinator insects which need it to get ready for winter.
- **Direct sowing under cover:** Direct sowing under cover is a type of sowing without tillage, done by sowing as a vegetal cover is still present on the plot.
- **Provisional Manuring Plan:** The manuring plan is a document made at the beginning of each campaign. It sums up the needs of every plot of the farm, and the way these needs will be covered to adjust the inputs to the plant exact needs. It is a tool used to reason fertilisation.
- **Micropollutants:** Micropollutants are polluting substances (mineral, biological, organic...) that may be present in the soil and from a certain rate cause a pollution of the soil or the water. Their levels are thus regulated
- **Phytosanitary treatments:** Phytosanitary treatments include all the treatments applied on a culture to protect it. Each treatment has a specific target, for instance, insecticides against insect pests, fungicides against fungus, or herbicides against weeds.



- **Biological control:** Biological control is a method that consists in using living organisms to prevent or reduce the damages caused by scavengers or weeds. A more frequent example is the use of ladybugs which eat aphids in gardens.
- **Bee-friendly molecules:** Bee-friendly mention, when it appears on a product label such as an insecticide or an acaricide, means that under specific conditions, this product has a minor toxicity on bees.
- **Plot record:** The plot record is an authentic historical background of the plot, which informs not only on the preceding crop, the current culture, the soil preparation, but also every action made: the treatment name, the used dose, the reason for the treatment...