

HARMONY WHEAT PRODUCTION CHARTER

France
2025 HARVEST



Mondelēz
International
SNACKING MADE RIGHT

OUR STORY

In 2008, the Harmony common wheat production Charter was developed with the help of agricultural and environmental experts and in close collaboration with industry stakeholders.

For the 2023 harvest, a new Harmony Charter has been introduced in France, and will be in all Harmony countries by 2030. As part of a continuous improvement approach and to foster a regular dialogue with stakeholders, the Charter is revised every year.

A PRE-REQUISITE: COMPLIANCE WITH REGULATIONS

In all circumstances, Harmony partners must comply with the regulations in force in their countries.

THE HARMONY CHARTER, A HOLISTIC APPROACH

The Harmony Charter's agricultural practices cover the entire scope of wheat farming and involve all players, from sowing to storage. They propose an inclusive vision of the Harmony program's ambitions, which are based on 4 pillars:

- **Climate:** with the ambition of reducing even more concretely the greenhouse gas emissions during the production of wheat as well as to engage the supply chain from now on, through best practices, to adopt the levers allowing the carbon sequestration in their farms;
- **Biodiversity:** with a 1st line dedicated to the establishment and maintenance of natural habitats and a 2nd line dedicated to the reduction of pressures on biodiversity, focused mainly on the use of plant protection products;
- **Wheat quality:** by ensuring the traceability of agricultural practices, wheat and flour in collaboration with our upstream farmers;
- **Farmers' well-being:** with a focus on sharing knowledge about the Harmony Program, innovations and new practices, and regulatory perspectives.

A PRODUCTION CHARTER FOLLOWING THE WHEAT TECHNICAL ITINERARY

The Harmony Charter's agricultural practices cover the entire scope of wheat farming and involve all players, from sowing to storage. The Harmony Charter incorporates two types of practices:

- **Mandatory practices (M):** require the achievement of a given result, or the deployment of means to achieve a specific objective.
- **Best practices (B):** not required to ensure compliance with the Harmony wheat requirements.

AN AUDITED CHARTER

The Harmony charter is supported and monitored on a regular basis throughout the year, as well as being audited by independent third-party organisations at 10% of farmers, 100% of storage organisations and 100% of millers.

MANDATORY PRACTICES

OBJECTIVE

CONTENT SYNTHESIS

CROP IMPLEMENTATION

1. Melliferous fallows or hedges

(Re)-Introduce on-farm biodiversity and feed pollinating insects.

Implement at least one of the two following options:

- Establish an annual or perennial melliferous fallow* on the equivalent of at least 3% of the total area grown with Harmony wheat;
- Or plant or complete a minimum length of hedges depending on the total area of Harmony wheat plot and maintain it.

2. Understanding and preservation of biodiversity

Improve farmers' knowledge of on-farm biodiversity for a better preservation.

Implement at least one of the four following options:

- Carry out a diagnosis of the potential for hosting biodiversity on the farm;
- Carry out at least one inventory or observation protocol of species;
- Carry out a diagnosis specific to a category of agroecological infrastructure;
- Or attend to a training session dedicated to biodiversity.

3. Crop rotation – Diversification and duration

Improve soil fertility and on-farm biodiversity by diversifying crops.

Grow at least 4 different crops* over 5 years, including at least one legume species* as a main or intermediate crop and limit the percentage of wheat-on-wheat to 10% maximum at the miller level to improve soil fertility and limit the development of weeds and pests.

4. Soil cover – Duration

Protect soils from erosion and improve their fertility, while storing carbon.

Optimize the annual soil cover rate* of the Harmony wheat plot to preserve soils from erosion by ensuring the soil is covered before wheat sowing and by establishing an intermediate crop after wheat if it is followed by a spring crop.

5. Tillage reduction

Preserve soil fertility and biodiversity.

Reduce tillage intensity within the rotation in which Harmony wheat is included, by reducing depth and frequency.

CROP NUTRITION

6. Reasoning of nitrogen inputs according to nitrogen efficiency

Optimise nitrogen fertilisation to reduce greenhouse gases and improve soil health.

At farm and storage bodies level, calculate and optimize the nitrogen efficiency* per Harmony plot and per wheat category to reduce mineral fertilization and thus, greenhouse gas emissions. This practice is complementary to other fertilization techniques, such as the fertilization plan and decision support tools.

7. Provisional fertilization plan

Adjust the quantity of organic and mineral fertiliser to be applied according to the crop's needs.

Carry out the provisional fertilization plan* for Harmony wheat plots to adjust the fertilizer inputs to plant needs and soil reserves

8. Organic input and return of crop residues to the plot

Reduce the use of synthetic inputs, while improving soil fertility and carbon storage.

Leave the residues of the crop preceding Harmony wheat in place, where possible and appropriate, or use organic fertilisers throughout the rotation. Do not use urban sludge.

9. Soil understanding – Soil analysis

Monitor soil quality and biodiversity to adapt farming practices.

Carry out a physico-chemical analysis of the soil every 5 years to monitor soil quality.

CROP HEALTH

10. Ban on chemical treatments on melliferous fallows

Avoid exposing flora and fauna, especially pollinators, to chemical pollution.

Restrict the use of phytosanitary treatments to avoid the risks of fauna and flora exposure to chemical pollution, in particular pollinators.

- Ban on the use of any phytosanitary treatment on the melliferous fallows;
- Ban on certain pesticides (e.g., insecticides) if the adjacent crop is attractive to pollinators or apply a 5-meters buffer strip to the crop adjacent to the melliferous fallow if not.

11. Use of biological control / biostimulants

Use alternatives to conventional plant protection products and fertilisers to reduce environmental impact.

Storage bodies must offer their farmers alternatives to the use of plant protection products, including at least one or more biocontrol products and/or biostimulants.

12. Conditions of application of authorised phytosanitary treatments

Manage plant protection treatments and reduce the risk of pesticides being released into the environment during treatments.

Apply good conditions of application to reduce the release into the environment (anti-drift nozzles, buffer strips of minimum 5 meters wide etc.).

MANDATORY PRACTICES

OBJECTIVE

CONTENT SYNTHESIS

IRRIGATION

13. Reasoning water inputs, considering the water reserves of the soil

Reason water supplies to preserve the resource.

Rationalize water inputs to preserve the resource, considering the water reserve of the soil, using irrigation equipment that optimizes water inputs and recording the volume of water used.

STORAGE AND TRANSPORTATION

14. Ban on storage insecticides

Limit phytosanitary products' residues in the finished products for consumers' health.

Ban storage insecticides with persistent residues to limit phytosanitary products' residues in the finished products. Use prophylactic methods to treat cells before wheat storage and apply preventive or curative methods (physical, biological pest control, chemical treatment like fumigation or essential oils) to treat wheat during storage.

TRACEABILITY

15. Harmony wheat traceability management

Ensure that Harmony wheat is not mixed with other wheat.

Clearly identify the batches of agricultural raw materials intended for Mondelēz International and physically separate to ensure that Harmony wheat is not mixed with other wheat.

16. Crop sheet and data collection

Have complete traceability of each plot of Harmony wheat, to calculate, among other things, agro-environmental indicators.

Record all the requested data about the farm, the use of decision support tools, the plot, all interventions, and their justification, to assess the impact of Harmony practices on the environment.

17. List of farmers

Ensure the traceability of Harmony wheat at all stages.

Send the list of farmers to Mondelēz International including information about the farm and the Harmony plots to guarantee traceability at each step of the value chain and organize audits.

PEOPLE

18. Harmony training program

Inform farmers about the specificities and requirements of the Harmony program and introduce them to practices or innovations that allow them to manage their farms holistically and contribute to their well-being.

Complete at least two new technical capsules per campaign on the digital platform Harmony Academy to learn about the specificities and requirements of the Harmony program and about practices or innovations in the sector.

19. Onboarding farmers on the new Harmony Charter

Ensure that farmers understand the Charter, which is a prerequisite for its application in the field.

Provide farmers with the Harmony Charter, a support for recommendation service and all elements necessary for its proper application in the field.

20. Ban on hazardous products for human health

Limit the risks to the person applying the products and to the surrounding population.

Ban on hazardous products for human health by choosing the product with the least impact on the health of the applicator and by not selecting active ingredients mentioning the most dangerous risk phrases*.

BEST PRACTICES (OPTIONAL)

	OBJECTIVE	CONTENT SYNTHESIS
CROP IMPLEMENTATION		
21. Ecological Focus Areas	Develop and maintain ecosystem services through dedicated <u>non-productive areas</u> * to maximize the positive impacts on biodiversity.	Allocate 7% of the utilised agricultural area to non-productive areas of ecological interest, and ideally 10%.
23. Intra-plot agroforestry	Introduce trees into cultivated plots to allow synergies between the different production systems.	Plant and maintain rows of trees within the plots, adapting the density and species.
24. Maintaining functional field borders	Encourage auxiliaries, reduce the risk of erosion and weeds	Maintain functional linear boundaries (outer field edges) around the Harmony plot to ensure refuges for wildlife, protection against erosion and facilitate weed management.
25. Temporary meadows in the rotation	Improve soil fertility and reduce pressure from parasites and weeds.	Increase the proportion of temporary grassland in grassland-crop rotations in mixed crop-livestock systems, or even reintroduce it in cereal systems over at least 2 years.
26. Soil cover - Diversification	Improve cultivated biodiversity while preserving soils and improving their fertility.	Establish a cover crop (before Harmony wheat and/or after Harmony wheat, depending on the cropping calendar) with at least 3 different species, including two species eligible for melliferous fallows.
27. Sowing and DON risk management	Limit pest pressure and the risk of lodging to reduce the need for plant protection products.	Adapt sowing dates and sowing densities using decision support tools to limit disease and lodging pressure to reduce treatments.
29. Direct sowing	Improve soil structure and biodiversity.	Not till the soil before sowing Harmony wheat to limit soil disturbance.
29. Optimization of diesel consumption by agricultural equipment	Reduce diesel consumption and greenhouse gas emissions associated to mechanization.	Diagnose tractor engines by running them on an engine test bench every 3 years and apply the rules of eco-driving after having following a dedicated training.
CROP NUTRITION		
30. Use of less nitrogen emitting forms	Optimise nitrogen fertilisation forms to reduce greenhouse gases.	Reduce the use of the forms of nitrogen most sensitive to ammonia volatilisation (i.e. urea and nitrogen solutions) in the total dose of fertiliser applied.
31. Planned nitrogen dose adjustment - Use of decision support tools	Increase the efficiency of the total nitrogen dose and reduce greenhouse gas emissions.	Use decision-support tools to optimise the forecast dose of nitrogen to be applied to the plot, as well as end-of-cycle management tools to fine-tune nitrogen applications.

BEST PRACTICES (OPTIONAL)

OBJECTIVE

CONTENT SYNTHESIS

CROP HEALTH

32. Management of treatments with growth regulators

Limit the use of growth regulators* to limit lodging of wheat and reduce impact on yield and quality.

Prevent the risk of lodging by choosing a variety less sensitive to this risk, managing sowing density and date, and adapting to soil type. Limit the use of growth regulators on Harmony plots.

33. Reduction of phytosanitary treatments

Limit the use of phytosanitary treatments to preserve soil biodiversity and reduce the risk of contamination of the surrounding environment.

Optimise the use of phytosanitary treatments on Harmony plots at the level of the storage organisation, as part of a continuous improvement approach (by monitoring a specific KPI).

34. Sowing of disease tolerant varieties and adaptation of fungicide use

Ensure reasonable use of plant protection products by only treating if necessary.

Implement one or more of the levers identified to reduce pest pressure:

- Sow a variety that is tolerant to at least one of the main leaf diseases (e.g., Septoria);
- Implement agronomic practices to reduce the pressure of bio-aggressors (e.g., planting of companion plants);
- Use a control tool to intervene at the right time and apply only the necessary dose (observation, use of risk grids, etc.);
- Introduce wheat varieties benefiting from the French Phytopharmaceutical Product Savings Certificates (Certificats d'Economie de Produits Phytopharmaceutiques - CEPP).

WASTE MANAGEMENT

35. Waste collection management

Avoid contaminating the environment and ensure that waste is appropriately processed.

The storage body is encouraged to help set up collection flows, propose solutions, in particular for the collection of waste such as empty packaging, unusable phytosanitary products, used Agricultural films, personal protective equipment, etc.

The storage body should inform the farmer of all existing waste collection channels for other waste such as used oils, batteries, fence piles, etc.

STORAGE AND TRANSPORTATION

36. Storage management

Avoid contamination of Harmony wheat during storage by adopting practices like ventilation and cleaning of storage cells.

Use only ventilated storage cells, prepare the cells before filling, record the evolution of grain storage temperatures every month from harvest to comply with the wheat cooling methodology, monitor the potential presence of insects inside, etc.

37. Cleaning and treatment of transport equipment

Eliminate the risk of damage to the crop from insect repellents on transport equipment and from residues of previously transported products.

It is recommended to ensure that the means of transport for Harmony wheat (skips, tanks) have been cleaned and that the cleaning methods used do not involve chemical treatments.

GLOSSARY



Biocontrol: Biocontrol brings together a variety of solutions to protect crops from diseases, insects and various pests and weeds. There are 4 families of biocontrol products: Macroorganism-based biocontrols; Microorganisms (bacteria, viruses, fungi); Chemical vectors (including pheromones); Natural products (of mineral, animal, or plant origin).

Biostimulant: Biostimulant or plant defence stimulator (PDS) is a product for preventive stimulation of the activity of an organism (plant in the case of PDS) or for stimulation of its immune system. It stimulates natural root and aerial processes to improve and enhance nutrient uptake, nutrient efficiency, tolerance to abiotic stresses, and crop quality. Biostimulants differ from plant protection products in that they promote plant vigour and development by controlling abiotic stresses, whereas biocontrol products act against biotic stresses

Crop residues: Crop residues are the above-ground parts of unharvested plants left on the ground in fields or orchards at the time of harvest: stems and stalks, leaves and pods for example.

Different crops: Two crops are different if they do not have the same botanical genus. There are three exceptions to this definition:

- Spelt and wheat, both of the same botanical genus (*Triticum*) count as different crops.
- The species of the families Brassicaceae, Solanaceae and Cucurbitaceae are, for the number of crops, distinguished species by species.
- A winter crop and a spring crop are two separate crops, even if they are of the same botanical genus (e.g., a spring wheat and a winter wheat count as two crops).

Growth regulators: Synthetic or natural regulators are classified in two types: plant growth promoters and plant growth inhibitors.

Legume species: Legumes are plants whose fruit is a pod. Many of these plants have bacteria on their roots that fix atmospheric nitrogen, which means that no nitrogen fertiliser is needed for their cultivation. In addition, their inclusion in cropping systems improves soil fertility and reduces fertiliser use on subsequent crops. This reduction in the use of nitrogen fertilisers results in a reduction in greenhouse gas emissions.

Melliferous fallows: Agricultural areas that are not used or developed in any way (neither mowing for resource mobilisation nor grazing) for a period of six months from 15 April to 15 October and carrying a cover favourable for pollinators. No plant protection products must be used on the fallow land during the plant protection products during the period of prohibition of use.

Nitrogen use efficiency: Farmer's average nitrogen efficiency per wheat class is calculated by considering data such as the yield, the protein content, the amount of nitrogen applied in the plot.

Non-productive areas: All landscapes features not used for agricultural production (fallows, buffer strips, afforested areas, hedges, etc.).

Provisional Fertilization Plan: A fertilization plan is made at the beginning of each campaign to manage fertilisation. 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.

Risk phrases: Risk phrases are annotations on the labels of chemicals that indicate the risks involved in their use, contact, ingestion, inhalation, handling or release into nature or the environment. These risk phrases follow the guidelines of the Globally Harmonised System of Classification and Labelling of Chemicals.

Soil cover rate: The annual soil cover rate for a plot is the ratio of the number of days the soil is covered to the total length of the cropping season for the plot (time interval between the harvest date of the last crop in year n-1 and the harvest date of the Harmony wheat). An intermediate crop is always linked to the crop that follows it. This rate is calculated from the sowing and harvesting dates of the crops, the nature of the soil cover at harvest date and the tillage dates.