



SAI Platform Sustainable Agricultural Practices for Cereals for testing

DRAFT

This document, entitled “SAI Platform European Cereals Practices Guidelines”, translates the sustainability principles into agricultural practices for cereal production in Europe. It covers wheat, durum wheat, barley, oats, rye, sorghum, maize and rice. A document will be developed later for other regions of the world.

Legal requirements at local, national and regional levels are taken as the minimum requirement. Since the legal framework differs from country to country, major requirements are recalled in the text.

Structure of the document on sustainable cereals practices

A structure that relates to the key production decision-making criteria has been chosen. Additional criteria concerning the social and environmental aspect of sustainability have been included. Two levels of assessment criteria have been defined: Compulsory (C) and Recommended (R). Sustainability means continuous improvement. The goal is to achieve first all the compulsory requirements and to strive to cover the recommendations.

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Approach	Sustainable Agricultural Practice	C	R	Assessment Criteria	N°
1- Site knowledge					
	a. The producer must be aware of the site history.	X		Record: - Previous crop: 2 years minimum - Fertilization: 5 years minimum for organic	1
	b. The producer must be aware of its location within the area and of any regulations on site (sensitive area, catchments area, protected area, vicinity of habitat, tourist zone, etc)	X		Knowledge of any sensitive area Any document linked to regulations on site	2
	c. Soil analysis must be carried out per field or per group of homogeneous fields	X		Record: soil analysis (at least every 6 years for P, K and organic matter every 10 years)	3
	d. Risks should be identified (pollution coming from the environment or an industrial site)		X	Awareness of pollution sources in the vicinity	4
2 - Seeds					
2.1 Variety	a. Choice of variety must take into account agronomic performance appropriate to the local conditions as well as market demand	X		Grower demonstration of adaptation (fields trials, seed supplier information)	5
2.2 Seed Quality	a. Good quality seeds with defined origin must be used.	X		Records of variety name, characteristics & origin	6
	b. Only seed treatments legally approved in the country of cereals production may be used	X		Records of the name of the product	7
	c. Sowing must be carried out at best climatic conditions, with seeding density adapted to dates, soil types, estimated losses	X		Record of dates, seed densities	8
2.3 Genetically Modified Organisms (GMOs)	a. The sowing of any GMO must comply with all existing regulations in the country of production.	X		Grower demonstration of compliance	9
	b. If GMOs are sown, their handling must ensure the proper traceability of the grain and the indication of GMO must be clearly stipulated to the buyer.	X		Traceability, labelling or contract	10
	c. GM crops must be handled and stored separately from other crops to avoid mixing	X		Record of the batch	11

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3 – Soil management					
3.1 Soil cultivation	Farming systems and cultivation techniques used on farm should prevent damage to the environment, e.g. soil erosion and pollution.		X	Visual inspection in field visit Record of cultivation	12
3.2 Fertilization management	a. Analyse the cereal's nutrient needs and quality based on its requirement and on the available supply (in the soil, from crop residues and from organic fertilisation). Define a fertilization plan.	X		Fertilization plan with NPK Record input and quantity of organic and mineral fertilization.	13
	b. Use of standardized and registered mineral fertilizers	X		Record	14
	c. Organic manure or compost can help improve soil fertility by increasing organic matter content, improve nutrient and water retention and reduce erosion.		X	Record input and quantity	15
	d. Use of sewage sludge/slurry and organic fertilisation must strictly comply with legislation.	X		Analysis of sludge/slurry Spreading plan	16
	e. Adequate amount and proper fractioning of N fertilization taking into account soil resources, crop needs, climatic conditions, surface and groundwater, efficiency and leaching risks	X		N Fertilization plan with application dates, and quantities per field	17
	f. The last nitrogen input during the growth should be adapted following a crop analysis when technology is available (This concerns wheat, durum wheat, barley and maize production)		X	Record, result of analysis	18
	g. Phosphate and potash fertilization application must be based on crop needs, fertilization history, crop residues and soil content.	X		Fertilization plan for P and K	19
	h. Input management must conform to all local regulations (nitrate sensitive area, protected sites, etc.).	X		Input management plan, dates, quantities	20
3.3 Intercropping	a. Planting an intermediary crop that would capture nitrates is recommended where appropriate		X	Crop rotation plan	21
	b. Straw management must conform to the legislation in force (e.g. for burning)	X		Grower declaration or visual inspection	22
4 - Crop Protection					
4.1 Method	The crop rotation management should minimize risks and optimize crop health		X	Crop rotation plan Grower's demonstration given local conditions	23

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	The risk must be assessed before any treatment. The treatment must be justified and recognized integrated pest management techniques must be used. Non chemical pest treatments are encouraged over chemical treatments	X		Assessment	24
4.2 Choice of Chemicals	The crop protection product utilized must be appropriate and nationally registered. Management tools (information sources, weather forecasts, health monitoring systems or field control, etc.) must be used before treatment to assess the risk. Use must not exceed maximum authorized doses and must conform to pre-harvest intervals.	X		Grower demonstration Registration of Practice (level of problem, product used, and quantity)	25
4.3 Storage	Crop protection products storage is locked, well ventilated and located away from other products. Storage must comply with legislation.	X		Visual inspection	26
4.6 Handling and use	a. Farm staff must follow label instructions & legislation in force.	X		Grower demonstration	27
	b. Surplus spray mix and washings must be disposed of according to local legislation and prevent surface and groundwater contamination.	X		Grower demonstration	28
	c. Target areas should be protected with appropriate protective measures (e.g. buffer strips).		X	Visual inspection	29
	d. Spray equipment is adapted, maintained and calibrated on a regular basis.	X		Self-inspection every year and external inspection every 5 years	30
5 - Irrigation					
	a. Irrigation must be adjusted to crop needs (assessment of soil drought).	X		Calculation of needs Record quantity used	31
	b. The water quality should be suitable for the purpose		X	Record water analysis	32
	c. The use of water sources must comply with local regulations.	X		Authorization if needed	33
6- Harvest Transport					
	a. All equipment used for harvesting, transportation handling, conveying and loading of grain must be clean.	X		Visual inspection Record dates of cleaning	34
	b. The harvest should be by single variety or groups of variety according to the demands of the buyers.		X	Visual inspection	35
Temporary storage on the field	Temporary storage on the field should be possible for a few days. It should be weather proof, and prevent bird, rodent and animal entry.		X	Visual inspection	36

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7- Post-Harvest					
7.1 Cleaning & Drying	a. Grain stored for more than a few days must have a moisture content and temperature suitable for storage. If drying is necessary, proper drying device should be used. Over-drying and heat damage must be avoided.	X		Record temperature, moisture content	37
7.2 Storage	a. Facilities must be suitable for storage and clean before use.	X		Visual inspection	38
	b. Bird, rodent and domestic animal entry to all grain storage must be prevented.	X		Visual inspection	39
	c. The variety or group of varieties is stored individually according to the demands of the buyers.	X		Records, samples	40
	d. The storage conditions should be monitored		X	Record temperature, moisture content, visual inspection of infestation	41
7.3 Post-Harvest treatment	Post-harvest treatments must be carried out only if needed and with full transparency on the registered product used. Information on the treatment should be provided to the client.	X		Records	42
8- Worker Health, Safety & Welfare	Local law and international regulations shall be duly respected. This refers in particular to the Universal Declaration of Human Rights and the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work. Assessment process may vary in each country according to the way social rules are verified by public authorities. When legislations are not in place, the check list below gives a reference of key items that should be followed				
8.1 Labour conditions	a. The work performed must be on the basis of recognised employment relationship established through national law and practice. The contract must include remuneration on the basis of recognised wages, the number of working hours, rules concerning overtime work. Employment conditions must comply with regard to worker age, leave, and pensions.	X		Contract	43
	b. Forced or child labour shall not either be used nor supported	X		Interview	44
8.2 Safety	a. Protective equipment where necessary must be available and used by the farm staff and be in compliance with legislation.	X		Availability of equipment and use where appropriate	45

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	b. Measures should be promoted to prevent accidents and injuries that can be caused in the working environment and in general on the farm property		X	Preventive actions to be taken Emergency procedure	46
	c. First-aid boxes must be available	X		Visual inspection	47
8.2 Health	a. All farm workers and their families should have access to health services.		X	Interview	48
8.3 Staff training	a. Employees should be provided with basic training required for or related to their area of work.		X	Demonstration of competence	49
	b. Training of workers for the correct handling and use of substances or materials that are hazardous or harmful for human health must be promoted.	X		Demonstration of competence	50
	c. Knowledge and awareness of charters for good practice and guidelines should be promoted. All farm workers should have a presentation of the objectives and principles of good agricultural practices.		X	Demonstration of knowledge	51
8.4 Freedom of Association	d. Staff should be free to establish, and to join organisations of their own choice.		X	Interview	52
8.5 Specific Aspects for workers	e. Workers and their families if living on the farm shall access to suitable infrastructure and services (e.g. living areas, lavatories...)		X	Interview	53
	f. A safe and cordial working environment free of any type of discrimination shall be promoted.		X	Interview	54
9- Environnemental Management					
9.1 Impact on environment	Producers should understand and assess the impact of their agricultural activities on the environment through the use of environmental performance indicators.		X	Demonstration of knowledge Record indicators on biodiversity, energy, inputs	55
9.2 Biodiversity	Producers are encouraged to have a biodiversity action plan for their farm which explains how provision is made for wildlife habitats and food sources through hedges, field margins, extensive pasture, etc.		X	Identify main species and habitat If necessary, record protection measures that have been taken	56
9.4 Waste management	a. Waste and by-products of cereal harvesting and processing should be handled according to the principles of reduction, reuse and recycling		X	Farm waste management plan	57

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	b. Used containers which have held substances that are potentially hazardous, e.g. pesticides and antimicrobials, must be disposed of in a proper manner which removes the hazard.	X		Compliance with legislation	58
9.5 Energy use	Perform energy assessment in order to identify areas for minimizing the use of non-renewable resources and maximizing the use of renewable energies (e.g. organic fuels).		X	Energy assessment Action plan	59