


**EISA**

**European Initiative for Sustainable  
Development in Agriculture**

***A Common Codex for Integrated Farming***





This Codex, outlining the fundamentals of Integrated Farming, has been elaborated jointly by the member associations of EISA - the European Initiative for Sustainable Development in Agriculture.

EISA members are strongly committed to sustainable agriculture, which is economically viable, environmentally responsible and socially acceptable. They will continue to work in partnership with all stakeholders to achieve this goal through the promotion and further development of Integrated Farming.

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## A Common Codex for Integrated Farming

***Sustainable development*** on our planet cannot be achieved without a major contribution from agriculture. People must be fed, and agriculture is faced with the challenge of producing food for a rapidly growing world population whilst maintaining the world's fragile resources. Modern farming systems have evolved to meet this need in a way that combines the essential requirements of profitability and productivity.

***Sustainable development*** must encompass food production alongside conservation of finite resources and protection of the natural environment so that the needs of people living today can be met without compromising the ability of future generations to meet their own needs.

***Integrated Farming*** meets these potentially conflicting challenges at farm level, in a manner that balances food production, profitability, safety, animal welfare, social responsibility and environmental care. ***Integrated Farming*** seeks to reinforce the positive influences of agricultural production whilst reducing its negative impacts. It is a means of achieving a sustainable agriculture and an indispensable part (but only a part) of sustainable development.

This Codex defines a set of ***common principles and practices that will enable farmers and growers to achieve these goals*** through the promotion and development of ***Integrated Farming***.





## The Principles

- **Producing sufficient high quality food, fibre and industrial raw materials**

Food production is a fundamental need for society. The primary aim for Integrated Farming is to provide continuously a wide range of food as well as fibre and renewable materials, of the highest quality at affordable prices to the consumer. This requires skill, attention to detail and compliance with regulations.
- **Meeting the demands of society**

Consumers are increasingly discriminating about the food they eat and the conditions under which it is produced. Safety to human health, animal welfare, environmental protection and conservation are the principal concerns. Integrated Farming demands an awareness of these concerns and the adoption of economically and socially acceptable production practices on a local, national and international basis.
- **Maintaining a viable farming business**

Farmers must remain in business to produce food and take care of the countryside. Integrated Farming is efficient and profitable whilst ensuring that a balance is achieved between running an economically sound business and meeting the constraints imposed by responsible social and environmental practices.
- **Caring for the environment**

The countryside is a rich and diverse variety of fields, meadows and forests, largely created by centuries of agricultural activity. Every farm operation affects the local environment, sometimes adversely. Integrated Farming enhances the positive aspects and minimises the negative effects so that the biological diversity of the agricultural landscape is maintained and preserved.
- **Sustaining natural resources**

Taking care of natural resources is essential for future generations. Integrated Farming optimises their use. This is in such a way as to ensure soil fertility, protect water and air quality and encourage biodiversity.





# The Practices

## 1 Organisation and management

*Integrated Farming is a dynamic process that requires, first and foremost, careful and detailed organisation and management. This means:*

- Investment of time in the management of the operation.
- Business planning, including setting realistic targets for economic and environmental performance.
- Keeping detailed records.
- Identification of what skills are required and provision of appropriate training to ensure a safe farm operation.
- Commitment from staff to the achievement of the targets and the overall aims of the business.
- Knowledge of where to obtain expert advice.
- Communication and demonstration for other farmers, and the public, of a profitable, yet safe and responsible method of farming.
- Adaptability and acceptance of scientific and technical advances that are beneficial to the environment, food quality and to economic performance, and which can be integrated into the management of the business as soon as they are perfected and approved.

## 2 Monitoring and auditing

*Integrated Farming is a system of farm management designed to be economically viable, ecologically sound and socially acceptable. Demonstration and recording of what is being achieved is provided by measurements of performance and continuous checking whether standards are being maintained or improved. This requires:*

- Critical self-examination of existing practices and a willingness to adapt or change them.
- Measurement of economic indicators, such as crop yields and animal performance, quality, prices, energy consumption, machinery and equipment costs.
- Measurement of environmental indicators, such as water quality, soil condition, biodiversity, effluents and odours, condition of hedgerows, woodland and other features.
- Monitoring of pest populations and control levels.

### 3 Crop protection

*Management of crop health is an essential part of any farming system if yield, quality, profit and food safety are to be maintained. Integrated Farming achieves this by a structured and long-term approach based on the premise that prevention of pest problems<sup>(1)</sup> is better than cure. Where control measures are needed, Integrated Farming practice requires evaluation of the problem and whether action is needed, and consideration of all available control options. This involves:*

- Implementing pest prevention measures, such as: sowing resistant varieties, adjusting crop rotations, and the timing of cultivations and drilling.
- Anticipating likely pest problems through an understanding of their biology.
- Being aware of the economic significance and ecological importance of different pests and their damage thresholds.
- Making use of forecasting models, official warnings, diagnostic kits etc.
- Making careful and frequent crop inspections, and observing the effects of short and medium term weather changes to ensure early diagnosis and a managed pest control strategy.
- Evaluating all available pest control options and selecting a method, or a crop protection product, that maximises human safety, minimises environmental impact and is economically justifiable.
- Using crop protection products as much as necessary, but as little as possible, always applying legally and in a targeted manner.
- Keeping records and being able to justify every action on economic and environmental grounds.
- Taking qualified professional advice.

### 4 Animal husbandry

*The conditions under which animals are housed, reared and transported in agricultural practice are sources of growing public concern. Integrated Farming employs techniques of livestock management that maintain animals in good health, comfort and low stress, by feeding, handling, housing and transporting them under conditions that reflect proper care and concern for their welfare. It requires:*

- Careful whole farm management to optimise the production of animal produce while ensuring the responsible use of by-products.
- Careful and knowledgeable planning and management.
- Skilled, trained and conscientious stockmanship.
- Proper health care.
- Appropriate housing.

(1) The term "pest" is used throughout this Codex in its widest sense, to include weeds, fungal plant diseases, viruses, rodents, mammals as well as insects.



### *Health and Hygiene*

- Minimising risk of infection and disease by good husbandry practices in pasture management and stocking density.
- Choosing clean feeding sites and provide adequate, clean bedding at all times.
- Ensuring good hygiene standards in housing by proper cleansing and disinfection.
- Complying with social needs of livestock in terms of group size and composition, movements and habits.
- Monitoring disease incidence and treating sick or injured animals promptly.
- Using only officially registered veterinary medicinal products in accordance with directions, and stored safely and legally, as directed.
- Complying with withdrawal periods for antibiotics and other medications.
- Implementing mandatory identification schemes and keeping up-to-date records of all animal movements.
- Recording details of all medicinal treatments.
- Seek appropriate veterinary advice to avoid disease and health problems.

### *Nutrition*

- Providing a nutritional regime that contains all nutrients, minerals and vitamins needed for individual animal requirements, designed to meet performance targets.
- Creating a feed plan to monitor and record nutritional requirements and complying with sound nutrition standards.
- Checking and recording the source, composition and quality of all animal feeds.
- Managing feed production and storage to maintain quality.

### *Housing*

- Ensuring compliance with local legislation.
- Providing adequate ventilation, lighting and space for the free movement of stock (in accordance with legislation and any local codes of practice).
- Ensuring correct maintenance of temperature.
- Providing access to sufficient fresh water.
- Ensuring clean lying areas and adequate drainage.
- Ensure handling, loading and transport facilities are adequate and safe.

## 5 Soil and water management

*Soil is a farmer's most vital asset, but it is also a limited resource. In some years, and in some countries, water is also in limited supply, and demand is likely to increase. Soil is not only the basic resource for crop growth, it also provides a filtering and buffering action to protect water (including drinking water) and the food chain from potential pollutants. It houses a rich and vital micro-fauna and flora. Soil is a living medium and its condition and health are easily damaged. Integrated Farming is founded on the long-term need to preserve soil in a healthy and productive condition, and to safeguard natural water sources and supplies. This involves:*

- A detailed understanding of the physical and chemical status of the soils on the farm.
- Maintaining or enhancing soil organic matter content.
- Adoption of cultivation practices that minimise damage to soil structure, such as minimum tillage, combined operations, attention to vehicle size, wheels and axle loads.
- Regular vehicle maintenance, especially tyre pressures.
- Matching cultivation methods and timing to prevailing soil conditions.
- Managing soil water by drainage maintenance in wet climates and by soil moisture conservation practices in dry conditions.
- Adoption of water saving practices and re-using or re-cycling water where possible.
- Taking measures to reduce the risk of soil erosion e.g. green cover crops etc.
- Avoiding pollution by spillage or run off.
- Avoiding accumulation of contaminants.

## 6 Crop nutrition

*All crops remove nutrients from the soil and these must be replaced in an ecologically responsible way. Integrated Farming achieves this by a balanced application of organic and mineral fertilisers including, if useful, organic wastes and composts. This requires:*

- Detailed analysis of the nutrient status of the farm soils, repeated on a regular basis.
- Where appropriate, a planned cropping rotation to minimise nutrient loss (especially by leaching) and to make best use of natural restoration of fertility.
- Calculation of crop nutrition requirements and matching fertiliser applications accordingly (including analysis of the contribution by organic nutrients).
- Keeping soil pH at optimum levels through appropriate management.
- Taking qualified, professional advice.



## 7 Energy management

*Most energy used in farming is generated from fossil fuels and is therefore a limited and valuable resource. Integrated Farming seeks to improve the efficiency of energy use and to minimise wastage. This involves:*

- Carrying out a farm energy audit to ensure that all energy consumption on the farm is as efficient as possible.
- Adoption of energy saving measures such as improved insulation of buildings, double glazing, regular maintenance of vehicles and machinery, remote control systems.
- Assessing fuel requirements of different field operations as part of the decision process.
- Combining field operations to save fuel.
- Minimising haulage distances.
- Investigating alternative energy sources, such as wind power, solar energy, biofuels etc., and adopting them if economically justified.

## 8 Waste management and pollution prevention

*Handling waste costs money. In addition, many farm wastes are potential pollutants of soil, water or air. Integrated Farming regards waste products as a resource to be reused or recycled if possible, and minimised if not. Management of waste and pollution prevention involves:*

- Identifying and recycling most organic wastes and some inorganic materials.
- Minimising non-usable wastes and disposing of them responsibly.
- Storing fertilisers and crop protection products securely and in accordance with legislation.
- Keeping accurate stock records.
- Creating emergency action procedures to minimise the risk of pollution from accidents.

## 9 Wildlife and landscape management

*Farms accommodate a diverse range of animals, birds, insects, wild flowers and trees. Much of the public concern about modern farming is directed at the loss of some of these species, especially birds, from the countryside because their habitats have been destroyed. Integrated Farming seeks to manage and enhance these wildlife habitats on the farm whilst keeping the business economically viable. This involves:*

- Identifying and understanding wildlife habitats and landscape features on the farm.
- Creating, as far as possible, a diverse cropping pattern on the farm.
- Reducing the wildlife impact of operations such as ploughing, grass cutting and hedge cutting.
- Managing field margins to reduce pernicious weeds and encourage a diverse flora and fauna.
- Managing water courses and wet areas on the farm to encourage wildlife and prevent pollution.
- Being aware of key indicator species of plants and animals whose presence on the farm is evidence of good environmental practice.

## 10 Crop rotation and variety choice

*A diverse crop rotation is the most effective indirect means of maintaining soil fertility and health, and reducing the impact of pest invasion. Integrated Farming utilises the best of modern technology to enhance, rather than replace, the traditional advantages of rotation.*

*Correctly managed, this leads to environmental, agronomic, management and economic benefits.*

*Decisions in planning the rotation include:*

- Choosing varieties appropriate for the farm, and meeting the requirements of customers.
- Choosing varieties and sowing dates that will minimise the impact of anticipated pest problems.
- Managing cultivation and fertiliser treatments to improve soil structure and health.
- Planning a cropping sequence and cultivation techniques to minimise the risk of nitrate leaching and reduce pest development.
- Planning a crop rotation that makes best use of available manpower and crop storage space.

## Conclusion

***Integrated Farming*** is a common sense whole farm management approach that combines the ecological care of a diverse and healthy environment with the economic demands of agriculture to ensure a continuing supply of wholesome, affordable food. It is not prescriptive because it is a dynamic concept: it must have the flexibility to be relevant on any farm, in any country, and it must always be receptive to change and technological advances. Above all, ***Integrated Farming*** is a practical way forward for European agriculture that will benefit all society, not just those who practise it.

***Integrated Farming*** makes a vital contribution to sustainable development by adding consideration of economic, ecological and social objectives to the essential business of agricultural food production.





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