

Farming practices and biodiversity

Total landscape management

Taking account of biodiversity in farming practices need not be a cause for concern. Certain current practices can be put to good use. The main thing is to sign up to global management of the landscape.

Improving the landscape and changing field practices are two approaches which will help to encourage or maintain the biodiversity of farming environments. But at what scale should one act? It is difficult to define a single ideal scale. Although there's no doubt that the effort must be maintained over the course of the years, there are all sorts of possible approaches. The appropriate area of action will depend on the species which one wishes to encourage and their way of life. For a species like the rabbit, which lives in colonies and whose radius of activity is about 200-300 m, one can act on a scale of a few dozen hectares. Other species, such as the partridge for example, will need intervention on the scale of its territory (table 1).

Table 1 : Territory and distribution in space of several species of small game.						
	Grey partridge	Red-legged partridge	Pheasant	Skylark	Rabbit	European hare
Size of territory	2 – 100 ha	Variable – Around an average of 30 hectares	About 10 to 150 hectares	1 – 3 ha	500 m ² - 5 ha	50 ha > 400 ha
Distribution in space and breeding season	Determined territories				Colonies	Overlapping of territories

Depending on the species to be encouraged, the scale for the introduction of favourable practices will be related to their territory size.



Cutting up the landscape

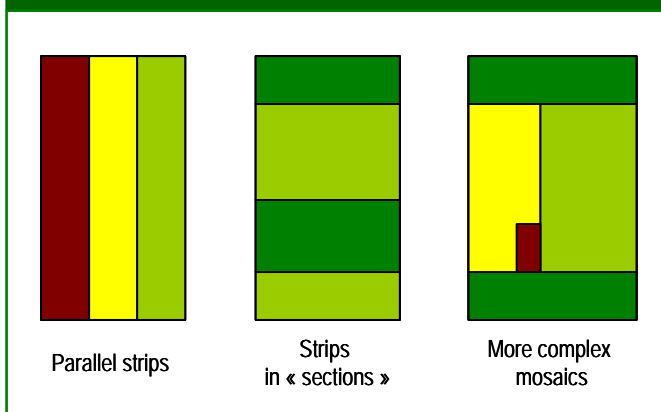
An essential point concerns the management of the landscape. The distribution of plant cover should take account of the characteristics of the territory: absence of cover at certain times of year, insufficient food in spring, absence of fixed landscape elements etc. It is important that each species finds everything it needs throughout the year. Thus there is a spatial and a temporal dimension to take into account.

The creation of discontinuities in the landscape makes it possible to respond to the needs of different species.

This is why one has to manipulate the grass strips and field headlands both in terms of distribution and maintenance. The diversification of crops, or at least the creation of numerous green corridors, should also be encouraged so long as it allows efficient use of machinery. In fact the more fragmented the field pattern, the more it will create breaks favourable to the different needs of species. The distribution of winter, spring, and possibly catch crops in the landscape will allow the creation of these corridors.

The more fragmented the field pattern, the more it will create breaks favourable to the different needs of wild species.

To create heterogeneous layouts (Figure 1)



When the landscape has areas offering few resources for animals, islets can be created.

For differentiated management

The choice of different types of crop cover and the timing of the maintenance of uncultivated zones in relation to others allows, for example, unchopped zones with tall cover and fragmented zones with low vegetation to be left. This improves the availability of resources. A short vegetative cover can provide nesting sites for skylarks and grazing for rabbits. Interspersed with tall cover it will also serve the needs of other species. Only chopping the edge of a grass strip or field margin and intervening later (or not at all) on the rest can be a solution.

Julie MAILLET-MEZERAY
j.mailletmezeray@arvalisinstitutduvegetal.fr

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Exploiting the existing system

Existing systems can (and sometimes may have to be exploited as part of a better approach to biodiversity. This is for example the case of grass strips beside watercourses, areas of environmental cover crop (away from watercourses), untreated zones required by product labelling or nitrate-trapping crops. The challenge will then be to choose the species and the method of maintenance most suited to its objectives. By diversifying the green areas and the management methods simultaneously, the needs of the various species should be satisfied (box).

To control diffuse pollution by pesticides, it is often advised to create grass strips where there is a change of gradient or to rearrange cropping sequence by alternating spring and winter crops to hold back runoff - two practices which can also be used for biodiversity. One provides permanent cover; the other helps to diversify the landscape. Two key points for any species.

Grass strips, areas with environmental cover and field headlands already help to provide wildlife with its needs.

Definition of the objective and progress made

Before launching an operation to restore biodiversity, a preliminary diagnosis is necessary. This should take account of the characteristics of the landscape, the method of land use and the farming practices used. The species present (at least the small game) and the hunting practices should also be evaluated. That way one will be able to fix objectives and choose a range of appropriate solutions for both management and farming practices.



It is possible to chop just the edge of a grass strip or field headland and to delay operations.