

# The CAP & Genetic Resources

## Genetic Resources

Agro-biodiversity deals with the variety of breeds and cultivated animal and plant species used by farmers for food, pharmaceutical and technical purposes. Genetic resources of both wild and domestic origin are crucial in order to be able to adapt to environmental changes.

However, during the past hundred years or so we have seen a steady decline in the amount of diversity found on farms with a trend towards the use of monocultures.

The food industry has driven the reduction of genetic diversity by prioritising productivity, efficiency and aesthetics, and disregarding other possibly important parameters such as nutritional value, ecosystem services delivered by a particular species and resistance to negative environmental effects.

By shrinking the genetic base of our food we are potentially weakening ecosystem resilience and increasing the vulnerability of our food systems to environmental challenges such as pests and diseases. Maintaining a 'bank' of genetic resources which current and future agricultural scientists can access is therefore extremely important.



### Facts & figures

- Since the 1900s, about 75% of plant genetic diversity has been lost<sup>1</sup>.
- 30% of livestock breeds are at risk of extinction with six breeds lost each month<sup>2</sup>.
- Today, 75% of the world's food is generated from only 12 plant and five animal species<sup>3</sup>.
- Of the 4% of the 250,000 to 300,000 known edible plant species, only 150 to 200 are used by humans. Three - rice, maize and wheat - represent nearly 60% of calories and proteins obtained by humans from plants<sup>4</sup>.
- The top four seed firms control 56% of the global proprietary (e.g. brand-name) seed market<sup>5</sup>.
- The EU is signatory to the International Treaty on Plant Genetic Resources for Food and Agriculture which has as its objectives the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising from their use.

### Recommendation

**The CAP needs profound change to support farming systems Europe needs in the 21st century. Public money must support public goods. Taxpayers must see real value for the billions they invest in the CAP. Those who farm sustainably, including broad genetic diversity, must be effectively supported while those who harm the environment should receive no public money.**

**If politicians are serious about more sustainable agriculture they must support a fundamental CAP reform now.**



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pic1: © Dorota Metera of Bioexpert, pic2: © Ian Britton

## Community programme on promoting genetic diversity<sup>6</sup>

The Council Regulation (EC) No 870/2004<sup>7</sup> established a Community programme which aims at promoting genetic diversity and the exchange of information including close coordination between Member States and the European Commission for the conservation and sustainable use of genetic resources in agriculture.

It facilitates coordination of international initiatives on genetic resources, in particular within the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and the FAO's Global Plan of Action for the Conservation and Sustainable Utilisation

of Plant Genetic Resources for Food and Agriculture.

The budget allocated for this complements the actions co-funded under the Rural Development Regulation. Currently 17 actions are co-funded and have a maximum duration of four years.

These types of programmes are a first step towards the preservation of our genetic diversity in the EU but they should be more open to informal and small initiatives in order to help maintaining in situ banks of genetic resources.



## Genetic diversity in Italian Rural Development Programmes<sup>8</sup>

Under the CAP's Rural Development Policy, Member States can offer agri-environment support for the rearing of local livestock breeds which are at risk of extinction and for the preservation of plant genetic resources which are adapted to local conditions and are at risk of genetic erosion.

In Italy, a number of regions have introduced these measures within their Rural Development Programmes. In Emilia Romagna, the "Mora Romagnola" (a breed of pig from that region) has been saved from extinction through CAP support and the local population has grown from 10 animals in 1997 to 600. Similar success has also taken place in the Piemonte Region, where the "sempione" goat has been saved<sup>9</sup>.



## Poor support for multi-species orchards in Poland<sup>10</sup>

For many years, Poland's farmers kept small orchards behind their houses, which provided them with a steady supply of fruit throughout the year: cherries and plums in the summer, pears and apples in autumn and walnuts in the winter. The trees, between 40 and 60 years old, are of diverse (some even forgotten) varieties, and have survived the communist years and intensification of agriculture. They are naturally highly-resistant to pests and diseases, require no spraying of pesticides and are highly valuable as a habitat for many species.

In 2009, the Polish Ministry for Agriculture and Rural Development introduced agri-environment schemes for organic orchards.

The scheme pays a total of €400 per hectare orchards of one species but only €200 per hectare is paid for mixed-species orchards. This measure effectively punishes farmers for keeping a diverse set of fruit trees which help preserve agro-biodiversity.

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