

Editorial

Science and environment – agriculture and environment

The most important goal of agricultural production is to deliver healthy, sufficiently nutritious and residue-free food raw material. Similarly to any economic activities, producing crops and agricultural goods is expected to be both economic and affordable for the consumer. In accordance with the aims of those engaged in agriculture, this activity is carried out by maintaining the fertility of soil, i.e. in a sustainable manner. One of the most crucial tasks of scientific research focusing on agricultural production is to support and promote this goal.

Production, however, heavily affects the environment. The accumulation of contaminants in soil or in surface waters and ground waters, and thus the environmental pressure of agricultural activities, is a major challenge for both the production and the scientific research underlying and promoting it. Sustainability of production can only be assessed in this broader aspect, and this is also the only way to ensure the protection of consumers' health.

We trust that the scientific results published in Columella will help to achieve the abovementioned goals of agricultural production, and that science can thus also contribute to environmental sustainability.

Agricultural ecosystems are Hungary's most extensive human dominated habitats. These areas are home not only to attacking pests and vermin, but also to a range of valuable protected and game species, as agricultural production also affects protected areas and hunting grounds.

Species occurring in agricultural habitats and their population dynamics can be rightly considered as specific indicators of the quality of production. The status of a population of any species is primarily determined by the quality of the habitat. This means that if the densities of the indicator species is stable or growing, it suggests high-quality habitats and thus good agricultural management. When, however, this number is dropping, it can indicate that something might be going in a wrong way. But what does it mean when the population of certain species (e.g. brown hare, pheasant, grey partridge) is decreasing, whereas that of others (e.g. greylag goose, roe deer, common wood pigeon) is rising?

Is our agricultural management good or bad? Does science serve agriculture and environment well or not? Are we capable of changes or providing alternatives in this field? Do we know what to change, what to alter at all? And if we do, can we explain how to utilise that in practice? So can we teach what we all need for the sake of our future? This is the responsibility of science and education for our environment and for our future. It is my earnest wish that Columella and its publisher, the Faculty of Agricultural and Environmental Sciences may serve this purpose well.

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