The project: 100 fields for diversity

From the former diversity of colourful fields…

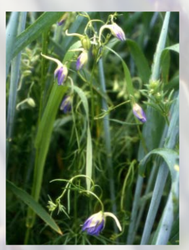
Arable wild plants …

like cornflower, poppy and camomile have been colourful companions of arable crop production for hundreds of years. About three quarters of all arable weed species occurring in Germany were first introduced to Central Europe along with cereal cropping. Increasing economic pressure within the agricultural sector and the resulting intensification of weed control with herbicides over the last few decades have resulted in an increasing loss of species in arable field habitats. Nowadays, every second arable weed species can be found on the Red List Data Book of at least one German federal state.

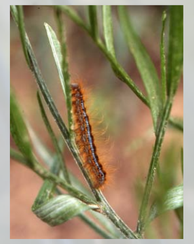
... to today's usual situation.

Species decline due to intensive farming

Intensively managed cereal fields no longer provide adequate habitat for many animal species which are directly or indirectly dependant on arable weed species as food sources. The fauna of arable fields has declined sharply as a result.



Forking Larkspur damaged by herbicide



Common lackey moth caterpillar on Cornflower

In addition to chemical weed control, measures such as seed cleaning, improved soil cultivation, early stubble clearing and changes to the site from lime application, fertilisation and drainage have contributed to a dramatic loss of biodiversity in arable fields.

The plant communities of arable fields are nowadays reduced to field border strips.

The Corn Marigold feature in the first year after set-aside...

Species decline due to set-aside

In the Central German uplands in particular, but also on poor sandy sites in the lowlands, arable fields have been abandoned. Set-aside or conversion into grassland mainly affects those sites that have traditionally been cultivated less intensively and therefore act as refuges for endangered species. Annual species that complete their vegetation cycle within one year after soil cultivation face adverse growth conditions when cultivation is discontinued and are often suppressed by perennial species.

… is already replaced by a grasslandvegetation in the second year.

Botanical excursion near Karlstadt (Bavaria), 2004

Sustainable conservation objectives are required!

Efforts to protect endangered arable species have been going on for almost 50 years. Programmes for field margin strips in the 1980s were especially successful. However, they have almost ceased due to the high administrative effort involved and changing subsidy policies. Many field flora reserves within the former German Democratic Republic have not survived German reunification. Arable weed species are dependant on appropriate cultivation of the fields by farmers. Close cooperation with local farmers is therefore a central concern of this project. Based on the current problems, a call for new, sustainable conservation objectives has been put forward in the “Karlstadt position paper” published in 2005.

Thorow-wax

White star of Bethlehem between grapevines

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Stony conservation field at Wernershöhe (Alfeld, northern Germany)

Project goal: a network of conservation fields in Germany

The project “100 fields for biodiversity” aims at establishing a nationwide conservation field network for wild arable plant species. Through this project, which is financially supported by the Deutsche Bundestiftung für Umwelt (DBU, www.dbu.de), there is a realistic chance of countering the ongoing loss of species by implementing a network of conservation fields. The conservation of typical arable plant communities such as Caucalido-Adonidetum flammeae, Teesdalio-Arnoseridetum and Papaveretum argemones should be ensured within every environmental area of Germany with the help of these “conservation fields”. On these fields, crop management is carried out without herbicide use and according to the growth preferences of the wild arable plants. The conservation fields should act as future centres for potential re-colonisation of rare species.

Beautiful and inconspicuous arable field plants need conservation policies:
Summer Pheasant's eye *… and Panicled Cat's Tail.*

Identification of fields suitable for conservation and securing long-term finance

In the feasibility study which runs until November 2008, nationwide research into potential conservation sites is only part of what is being undertaken. In addition, policies and strategies are being developed in order to ensure long-term financial support and management of the conservation fields.

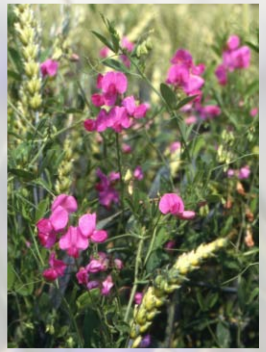
Arable wild plant beds in the open-air museum in Kommern (Eifel, Western Germany), 1984

Lamb's Succory, a nowadays scarce species of acidic sandy fields

Individual solutions and support by local sponsors is needed as well as the involvement of federal estate authorities, regional departments, agencies and societies. The implementation of the policy is due to take place in the project phase following the initial study. An appropriate selection of fields, optimisation of management and maintenance measures as well as participation and motivation of farmers will be key concepts in this.

Excursion of the working group "Nature conservation in the agricultural landscape" in Rhineland-Palatinate, 1997

Thomas van Elsen, Stefan Meyer and Wolfram Güthler (from left)



Tuberous Pea

More information: see project-webiste

The project homepage provides information about establishing the network of conservation fields and is updated regularly. The website serves for information exchange and for connecting the stakeholders. The project “100 fields for diversity” can only be implemented in cooperation with interested farmers, active regional associations for landscape cultivation and nature conservation, authorities and local heritage museums. If you are interested, please get in touch with the project partners or regional coordinators.

www.schutzaecker.de

European Venus' Looking Glass

Wild Fennel and Carrot Burr Parsley

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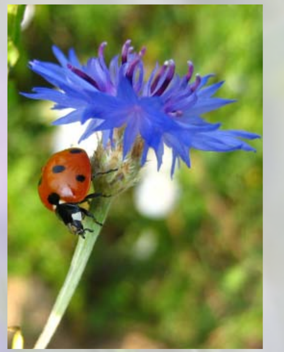
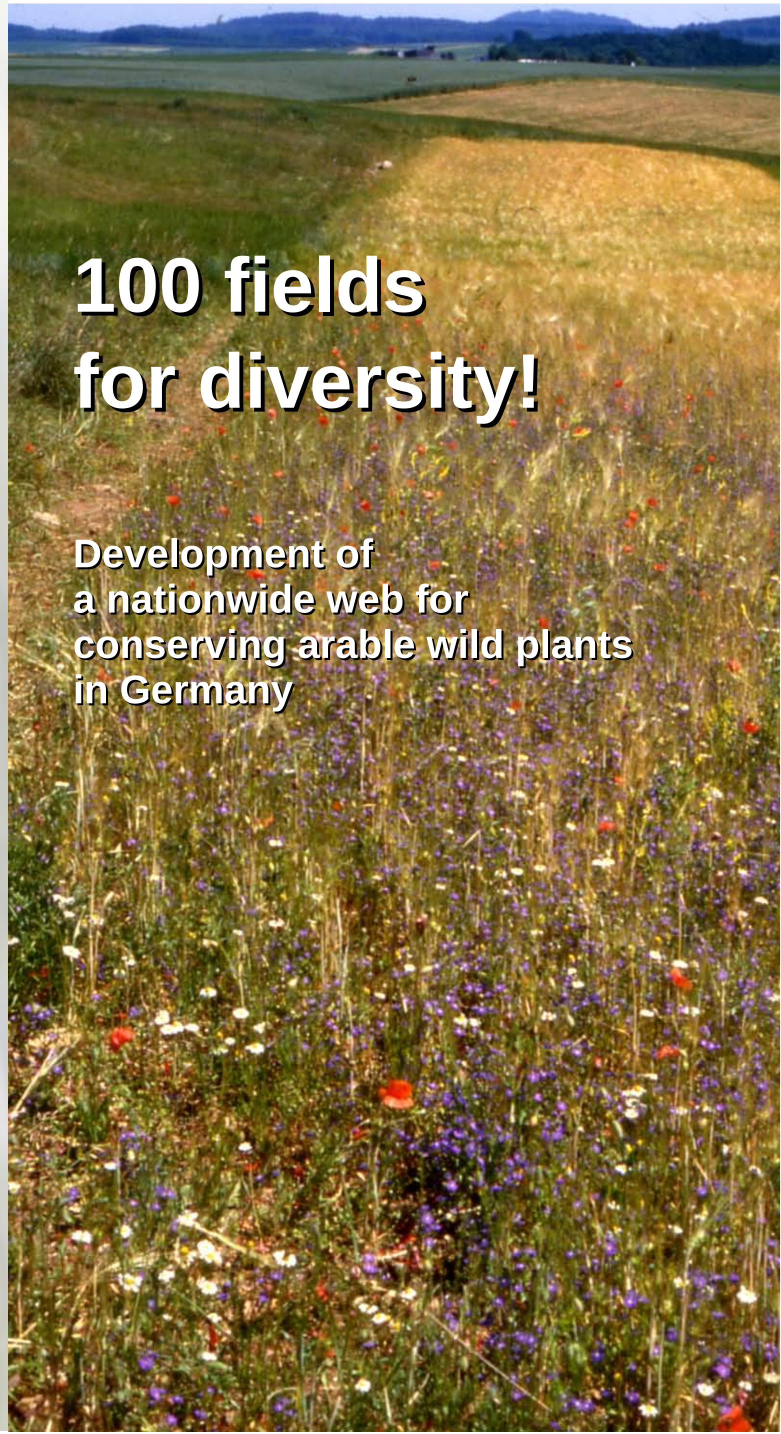


Cornflower with lady bird

Field Cow-wheat

Text: Thomas van Elsen; proof-reading: Lynda Hepburn; layout: Anne-C. Gärtner; photos: Thomas van Elsen (20), Jürgen Metzner (1), Stefan Meyer (2), Jörg Weickel (1); cover picture: Calcareous field in the northern Eifel (Western Germany).



100 fields for diversity!

Development of a nationwide web for conserving arable wild plants in Germany