

The Credit Point System

Farmland biodiversity cannot be easily and directly measured. Therefore, we developed the Credit Point System (CPS). It serves as a form to fill in all efforts promoting biodiversity at farm-scale. After filling in the CPS, a point score is returned which is a proxy for all biodiversity efforts made at a given farm.

Farmers can “score points” by applying 34 different measures. In Switzerland to receive general direct payments, it is a prerequisite to manage at least 7% of the utilised agricultural area (UAA) as ecological compensation areas (ECAs). These mandatory ECAs are one substantial part of the credit point score. The same is true for ecological quality, size and spatial distribution of ECA. Further, points are given for grassland and arable options as well as genetic diversity (heritage breeds/heirloom crops).

The scores are corrected for a variety of factors: Farm size, land-use (amount of arable vs. grassland), production zone (lowland vs. upland). Moreover, the scores are weighted according to their known (previously analysed) benefit for biodiversity, i.e. larger-sized species-rich flower meadows will yield more points than simple no-input meadows.

The most important measures and their score ranges (0 to maximum number of points which can be scored) are briefly explained below. All measures are described in detail in a handbook which is available in German and French (Leitfaden, Jenny et al. 2011).

The Credit Point System is currently evaluated by the Swiss Ornithological Institute and the Research Institute of Organic Agriculture FiBL in the long-term project “Scoring with biodiversity – farmers enrich nature”. It is partly funded by the agricultural organisations IP-SUISSE (integrated farming, 20'000 farmers) and Bio Suisse (organic farming, 6'000 farmers).



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Measure	Definition / Content	Explanation / ecological background	Score range (min. - max. number of points, lowland CPS)
Average field/parcel size	A plot cultivated with one crop or grassland/pastures. Average parcel size = $(UAA^* - ECA^{**}) / \text{nb. of fields.}$	Densities of many species are higher, the smaller the parcels are.	1 to 3 points
Number of land-use types	Arable crops, horticultures, mown grass, pastures, vineyards, vegetable crops... (max. 9 possible distinctions)	Species richness is higher on land-use diversified farms.	1 to 3 points
ECAs – registered	To receive any subsidy payments (direct payments), farmers must manage min. 7% of their UAA as ecological compensation area (cross-compliance). There is a defined set of ECA types which can be registered and for which payments can be received. Field and standard fruit trees can also be registered (1 tree = 1 Are).		ECAs are summed and calculated as percentage of UAA. 1 to 6 points if ECA account for more than 7% of UAA.
ECAs – high quality	In addition to the general payments, farmers can apply for extra payments for high-quality ECAs. The high-quality ECAs are monitored and verified periodically by experts.		A certain threshold of high-quality ECAs will yield 2 to 6 additional points.
ECAs – structurally enriched	ECAs can be structurally enriched by stone walls, ponds and pools or by retaining min. 5% of rough grass.		2 to 6 points
ECAs – large size	High-quality ECAs larger than 25 Ares. These large ECAs are divided into 25-Are-units. An ECA of 100 Ares (1 ha) thus equals four 25-Are-units. All units are summed for the point score.	Large and contiguous ECAs are very valuable habitats in intensively used arable and grassland. They are refuges providing shelter, food and protection from predation especially for ground-breeding species.	2 to 6 points

Measure	Definition / Content	Explanation / ecological background	Score range (min. - max. number of points, lowland CPS)
ECA – spatial distribution	number of ECA which are larger than 10 Ares	Linear structures play a crucial role in connecting wildlife-friendly habitats. Ideally, they are combined with larger, contiguous ECAs.	number of ECAs per 20 ha is calculated: 2 to 6 points
Arable options	Skylark plots (undrilled patches), wider sown rows, spring crops, over-winter cover crops, under-sown crops, set-aside management, no growth regulators in cereals and rape, no herbicides, no mechanical weeding after mid-April.	In Switzerland, ECAs on arable land are often lacking. Where ECAs on arable land are not possible, these in-field arable options should be applied to promote sustainable arable farming at large-scale.	0.5 to 2 points per option
Grassland options	In extensively used ECA grassland: use of bar mowers, staggered mowing, no-input meadows in fruit orchards, double fences. Intensive grassland: No silage, use of bar mowers, double fences in intensive pastures.		0.5 to 2 points per option
Further options	Structured forest edges, genetic diversity: Heritage breeds/heirloom crops, specific measures for defined target species (monitored by experts).		0.5 to 2 points

*UAA = utilised agricultural area

**ECA = Ecological compensation area