How the Swiss agricultural policy promotes Integrated Pest Management (IPM)
Example: arable crops

Prevention:
Agronomic rules based on the approach of “Integrated Production Principles” are translated into regulation, called Proof for ecological performance (PEP). Complying with the PEP-requirements for the entire farm area is pre-condition for all subsidies (direct payments).
The elements of PEP cover agri-ecological pre-conditions such as a well-adjusted fertiliser balance, an appropriate share in ecological compensation areas (min 7% of agricultural land), compulsory crop rotation, measures for soil protection and restricted use of plant protection products. This requirements have become the bottom line for all private labels.

Successful incentives: the following programs (with financial aid), in which farmers can voluntarily participate, have proven to be particularly successful.

Low-input Grain and Oilseed Rape Production:
Promoting the cultivation of grain and rape without plant growth regulators, fungicides and insecticides. Only herbicide can be applied. Restriction applies to all wheat, feed grain or rape fields of the entire farm. Combination with label possible.
Low-input Grain Production: 70’000 ha, 45% CH-Grain Extensive Rape Production: 3’000 ha, 10% CH-Rape

Organic Agriculture:
The use of synthetic-chemically manufactured pesticides for the entire farm are prohibited. 10% of CH-farms, mainly in mountain region with roughage consuming livestock.

IPM: treatment only if necessary:
Supervised control, including, warning systems for pests and plant diseases and intervention thresholds for pests.
- Example for pests in cereals and potato: Restriction of free use of insecticides to products with no or low impact on beneficial insects. All other approved insecticides must be permitted by cantonal authorities based on case-by-case decision (urgent need due to weather, location, heavy infestation).

Measures to protect water:
Regulation for inspection of sprayer (every 4 years), rinsing sprayers on the fields, buffer stripes. Risk mitigation measures associated to the official registration of pesticides.

Examples of difficulties encountered in implementing IPM measures:
- In potatoes, treatments according to PEP with specific insecticides against aphids and potato beetles would need two separate treatments at different time points, while the use of a (not PEP-compatible) broad range insecticide would allow a control of both pests with one treatment (and a reduction of production costs).
- Adhering to tolerance thresholds: Farmers are reluctant to spend time observing the development of diseases and pests. In view of the relatively low costs of plant protection treatments, risks for yield loses are not accepted.
- Other important changing elements: rationalization and specialization of farming, quality requirements for the market.

Solutions: Reliable thresholds and local level warning systems; more resources for research and advisory services.

Advantage PEP: To avoid crop rotation related diseases or pests (i.e. Diabrotica spp.).

6 meters wide buffer stripe along watercourses

Conflict of interests between ecology and economic aspects.