LIST OF INTERVENTIONS POTENTIALLY RELEVANT FOR THE CASE-STUDY AGRICULTURE, EXTRACTED FROM THE LIST ESTABLISHED BY THE CAMBRIDGE CONSERVATION SCIENCE GROUP (as existing on Oct 24th, 2012)

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15 Grow plants that provide nectar or pollen resources
This intervention involves growing plants that provide nectar or pollen resources to natural enemies, and includes studies that look at the effect on natural enemy populations or on pest populations.

16 Use "banker plants" to provide supplementary prey for natural enemies
For the purposes of this synopsis, banker plants are plants that provide natural enemies with supplementary prey. This may facilitate natural enemy population growth, or maintain natural enemy populations outside the crop growing season

17 Grow plants that provide shelter, habitat or other resource for natural enemies
This intervention includes studies that test the effect of growing plants that provide natural enemies with resources that are not nectar/pollen (included in intervention 15) or supplementary prey (included in intervention 16). – Studies that demonstrate an effect of growing non-crop plants on natural enemies but do not specify the resource provided are also included in this intervention.

20 Grow plants that produce volatiles that attract natural enemies
This intervention involves growing non-crop plants which produce volatile chemicals that attract natural enemies, thereby encouraging the enemies to Non-crop plants could be grown in field margins or interspersed into the main crop.

23 Plant trap crops around fields to attract pests away from crop
This intervention involves growing plants around the field that are more attractive to pests than the main crop, to attract pests away from the crop.

25. Provide grass buffer strips margins around arable or pasture fields
This intervention involves leaving field margins uncropped and sowing with grass seeds, sometimes mixed with small quantities of wildflower seeds as.

27Include short rotation coppice in the agricultural landscape
Short rotation coppice uses fast-growing trees such as willow and poplar as a source of fuel wood, often for use in biomass power stations. It can be grown in hedgerows or field margins, or as a crop in its own right. Short rotation coppice provides a habitat for natural enemies that are present even when the coppice crop is harvested. This intervention includes studies that look at the effect of short rotation coppice on the ecosystem service of pest control in surrounding food crops.

33Reduce tillage
This intervention involves reducing tillage to enhance the ecosystem service of pest control. Studies of the direct effects of tillage on pests or weeds will not be included, as this does not enhance the ecosystem service. Examples would include studies that looked at the effects of tillage on natural enemies of pests or weeds.

34Change the density at which crops are planted
This intervention involves changing the spacing between crop rows, or between plants within rows.

35 Grow cover crops beneath the main crop (living mulches) or between crop rows
This involves growing cover crops at the same time as the main crop. In cereals, cover crops can be grown beneath the main crop, whilst in vegetable crops cover crops can be grown between crop rows. Cover crops can help to control weeds, and provide resources for natural enemies.

37Intercrop with plants that repel pests
This involves interspersing plants that produce pest-repellent chemicals in with the main crop.

38Combine trap crops and repellent crops in a push-pull system

39: Grow cover crops when the field is empty
This involves growing cover crops in the field between growing seasons. Growing cover crops for a growing season would come under intervention 40.

40 Incorporate fallow periods into crop rotation
This involves leaving arable land uncultivated for at least one growing season.

41 Incorporate leys into crop rotation –
this involves converting arable land to grass or legume pasture for at least one growing season

43Add mulch to crops
This intervention includes studies that look at the effect of mulch on the ecosystem service of pest control. A mulch is normally a layer of organic material applied to the surface of the soil, although inorganic material such as plastics can also be used. Adding mulch to crops can import natural enemies directly, or provide a more favourable environment for natural enemy populations. Mulches may also control weeds, by reducing light penetration and temperature fluctuations at the soil surface. Some plant residues used for mulching may leach allelopathic chemicals into the soil, further suppressing weed growth. For the purposes of this synopsis we are defining mulch as a layer placed on the soil surface. Studies that look at the effect of incorporating plant residues into the soil are included in intervention 45: Incorporate plant residues into the soil.

46Use soil amendments to induce soil suppression of pests and pathogens

This intervention involves adding chemicals or biological matter to the soil, with the goal of stimulating the soil fauna to repress pests and pathogens. For this intervention to enhance the ecosystem service of pest control, the 15 studies soil amendment should act on upon the soil fauna already present, stimulating it to suppress the pest. Amendments that act directly on the pest, or that introduce new species to the soil, are excluded. However, we also include studies where the causal agent of the suppressive effect is not

47Create beetle banks

Beetle banks are raised strips planted with grasses, which run through the field. They serve as an overwintering habitat for beetles, which provide pest control services in the spring. By dividing the field, they also reduce the distance that predators have to travel to reach the centre of the crop, a potential problem if the only over-wintering habitat is at the field edge.

48 Create uncropped field margins or plots by allowing natural regeneration

This intervention involves leaving field margins or plots within the field uncropped. Margins or plots may be cultivated (ploughed or harrowed, for example), but are not seeded either with the crop or with grass/wildflower mixtures but left to regenerate naturally.

49 Grow cover crops under orchard trees

This involves growing cover crops on the orchard floor to control weeds.

Cover crops that provide resources for natural enemies are placed instead in the three interventions listed below, depending on the resource: Intervention 15: Grow plants that provide nectar or pollen resources ; Intervention 16: Use "banker plants" to provide supplementary prey for natural enemies ; Intervention 17: Grow plants that provide shelter, habitat or other resources for natural enemies