**Appendix S2** Detailed description of the establishment and maintenance of the flower strip and the hedge herb layer plus further details on study sites and data collection.

## Establishment and maintenance

### Flower strip:

Ground was first prepared by the individual farmer owning the orchards. Hence the preparation before sowing differed between sites. Three of the flower strips were created on the lawn-like ground vegetation typical for apple orchards. In March, two of these strips were treated with glyphosate; the third strip was tilled several times every few days. The three strips were then prepared with a stone burier in the beginning of April. The fourth strip was prior a fallow apple row prepared using a motorized rotary tiller. We manually sowed a multi-seasonal seed mixture in the beginning of April containing regionally produced wild flowers and cultivated plant species (composition see Table S1). Seeds were pressed onto the soil with a roller. We regularly picked weeds manually in the first weeks after sowing when doing data collection. The strips were mown to a height of ca. 10cm in autumn 2018/19 and on ground level in autumn 2019/20.

### Hedge herb layer (Improved hedges):

The flowerbed was prepared with a motorized rotary tiller in the beginning of April 2018 in all five sites. We sowed manually in the end of April after digging the soil up once again in order to remove germinated weeds. We used a regionally produced multi-seasonal wildflower mixture for edges that contains only native plant species (composition see Table S1). We regularly removed weeds in the first weeks after sowing when doing data collection. The hedge herb layers remained unmown throughout the experiment.

## Details on study sites and data collection

Originally, we set-up five sites per enhancement measure, but one site each of “flower strip” and “hedge” had to be abandoned: at one flower strip the land owners decided to exit the study and at one (unimproved) hedge the farmer added a flower strip without consulting us.

Plot selection (1m³): We selected areas with maximum flower diversity to depict the maximum bee diversity and community completeness, which resulted in a conservative estimate in homogeneous vegetation and an optimistic estimate in heterogeneous vegetation. If there were not enough flowers available, we added plots with zero flowers and zero bees to still generate the required number of plots. If possible, we located plots at sunny spots.

Bees that escaped in the field were attributed to social or solitary bees if possible and used for abundance calculations, but not for species richness or community composition.