Table 1 – Overview of the number of sites sampled and analysed, the number of pesticides screened and detected in each matrix for each species and crop corresponding to the 18 datasets included in the indices calculation. The percentages of sites with analysed samples were compared to the theoretical number of samples according to the protocol (=64 samples for each matrix, i.e., 8 sites × 8 countries). *A. m*: *Apis mellifera*. *B. t*: *Bombus terrestris*. *O. b*: *Osmia bicornis*. APP: apple. OSR: oilseed rape. *Apis*: pollen collected with pollen traps set up on *A. mellifera* colonies.

| **Matrix** | **Type** | **Crop** | **Number of sites with samples sent to the laboratories** | **Number of sites with analysed samples (%) - N** | **Number of sites with at least one pesticide detected (%)** | **Number of pesticides detected in at least one site - P** | **Number of pesticides screened** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Beebread | *A. m* | APP | 62 | 62 (97%) | 62 (100%) | 98 (37%) | 267 |
| OSR | 62 | 62 (97%) | 62 (100%) | 78 (29%) | 267 |
| Pollen-nectar stores | *B. t* | APP | 56 | 51 (80%) | 50 (98%) | 97 (36%) | 267 |
| OSR | 60 | 56 (87%) | 55 (98%) | 84 (31%) | 267 |
| *O. b* | APP | 42 | 42 (65%) | 39 (93%) | 79 (30%) | 267 |
| OSR | 47 | 46 (72%) | 46 (100%) | 73 (27%) | 267 |
| Bees | *A. m* | APP | 64 | 64 (100%) | 41 (64%) | 22 (6%) | 373 |
| OSR | 64 | 64 (100%) | 24 (37%) | 14 (4%) | 373 |
| *B. t* | APP | 61 | 61 (95%) | 36 (59%) | 19 (5%) | 373 |
| OSR | 64 | 64 (100%) | 21 (33%) | 11 (3%) | 373 |
| Nectar | *A. m* | APP | 64 | 64 (100%) | 49 (77%) | 21 (25%) | 85 |
| OSR | 63 | 63 (98%) | 42 (67%) | 16 (19%) | 85 |
| *B. t* | APP | 61 | 60 (94%) | 47 (78%) | 24 (28%) | 85 |
| OSR | 64 | 64 (100%) | 39 (61%) | 14 (16%) | 85 |
| Pollen | *Apis* | APP | 56 | 56 (87%) | 49 (88%) | 44 (13%) | 336 |
| OSR | 63 | 61 (95%) | 44 (72%) | 25 (7%) | 336 |
| Flowers | APP | 51 | 26 (41%) | 26 (100%) | 58 (19%) | 300 |
| OSR | 53 | 34 (53%) | 32 (94%) | 57 (19%) | 300 |

Table 2 – Field site characterisation based on the index calculated on pesticide residues detected in **beebread** collected in ***A. mellifera*** colonies in the 62 **apple orchard** sites. CHE: Swiss sites. EST: Estonian sites. GER: German sites. IRL: Irish sites. SWE: Swedish sites. UK: The United Kingdom sites.

| **Cluster** | **Cluster 1** | **Cluster 2** | **Cluster 3** | **Cluster 4** |
| --- | --- | --- | --- | --- |
| Number of sites | 10 | 12 | 21 | 19 |
| Mean index | -1.32 | -0.49 | 0.16 | 0.83 |
| Mean number of pesticides | 3.90 | 9.67 | 15.8 | 23.7 |
| Number of pesticides over-represented compared to the mean with p-value<0.05 (% compared to the total pesticides detected in at least one site) | 0 | 7 (7.1%) | 0 | 30 (30.6%) |
| The most over-represented pesticides compared to the mean (p-value <0.003). I: insecticides, F: fungicides (the mean concentration in µg/kg) | 0 | 0 | 0 | FLONICAMID I (78.2)  PYRIMETHANIL F (1 090)  FLUXAPYROXAD F (452)  PENTHIOPYRAD F (62.8)  BOSCALID F (555)  DITHIANON F (9 230) |
| Countries over-represented within clusters compared to the mean with p-value<0.05 (% compared to the total number of sites in the cluster) | EST (50%) | 0 | 0 | GER (36.8%)  UK (31.6%) |
| Countries under-represented within clusters compared to the mean with p-value<0.05 (% compared to the total number of sites in the cluster) | 0 | 0 | 0 | CHE (0%)  IRL (0%)  SWE (0%) |