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BEE SPACE: SOCIAL BEHAVIOUR AND BASIS OF RATIONAL BEEKEEPING

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The nest of social bees of the genus *Apis* is composed of one single vertical wax comb built in the open air in the case of species belonging to the subgenera *Micrapis* and *Megapis*, and by a higher number of parallel combs built inside a cavity in the case of species belonging to the subgenus *Apis*. In the latter case the distance between combs is rather uniform and depends only from the size of the bees living on them, so to let the bees move easily inside the nest. For this reason this distance was called «bee space».

The discovery of the bee space is the foundation of rational beekeeping as it permitted the development of rational beehives, in which such a distance is kept not only between single combs, but between these, the walls and the other parts of the hive too. Thus hive inspections become possible, as well as harvesting honey without damaging the colony and other common beekeeping practices; moreover, these technological innovations also favoured the development of research on honeybee bio-ethology.

This paradigm of beekeeping was lately brought into question, leading to the necessity of a re-examination of the knowledge that was considered by now acquired definitely.

KEY WORDS: *Apis mellifera*, comb spacing, hive, NaturalMussiSpace, *Varroa destructor*.