

Research Institute of Horticulture Division of Apiculture



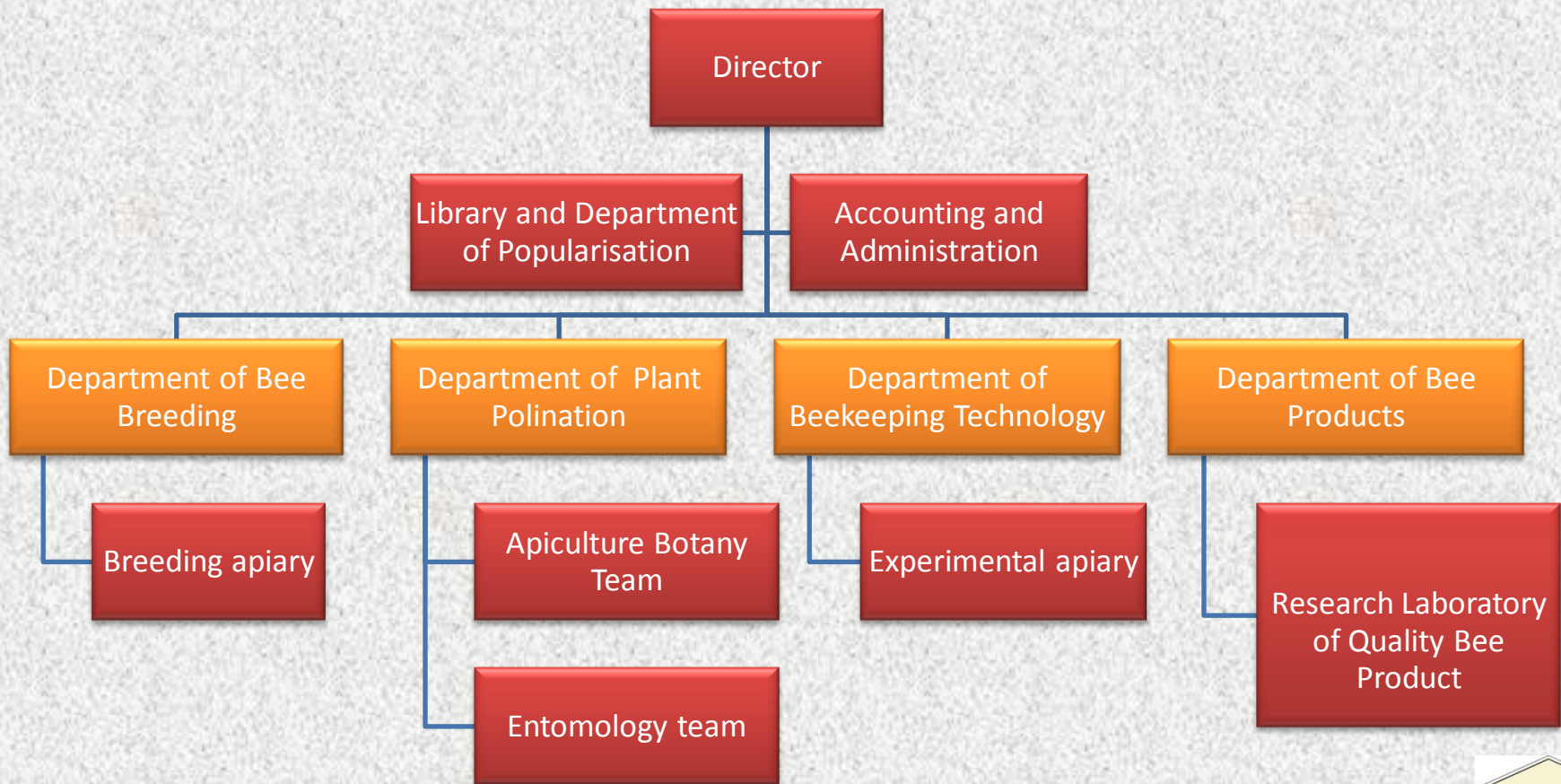
Bieńkowska Małgorzata



Location of the Institute



Organizational Structure



The main areas of activity

- Apiculture Division is the only one Research Institute in Poland which includes all areas of the researches directly concern with apiculture.
- It employs 31 people, among them 15 are scientists (4 professors, 9 doctors, 2 PhD students).



Scientific and experimental basis of

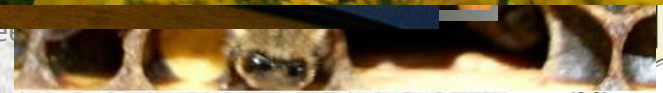
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Bees and Pollination



Agriculture and conservation of honey bees
Brussels 16.10.2012



Department of Plant Pollination

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Department of Bee Products





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Cooperation with units and province organizations

- Consultations of bee breeding programs in Poland
- Ministry of Agriculture and Rural Development list of experts in the field of plant biodiversity
- Participation in Ministry of Agriculture and Rural Development consultative team according poultry meat, eggs and honey
- Cooperation with Ministry of Agriculture and Rural Development on sector of apiculture – expertise, analysis, reviews (including judicial)
- Membership in Polish Bee Research Association and other (Polish Association of Acarologists, Polish Association of Entomologists).
- Cooperation with beekeeping organisations (Polish Beekeeping Association), associations (Association of Professional Beekeepers, Beekeepers Association „POLANKA”) and beekeeping cooperatives.



International cooperation

- Fellowship in European Association for Bee Research (EurBee)
- Fellowship in European Honey Bee Breeding Commission
- Fellowship in International Honey Commission (IHC)
- Cooperation with scientific centres from many European countries, USA and Australia
- Fellowship in COLOSS



- **Cooperation within COST Action FA0803 “*Prevention of honeybee Colony Losses (COLOSS)*” - Working Group 4: Diversity and Vitality**
- **„Interactions between environment and genotype factors and their influence on bees in Poland and Europe”**
- **„Influence of genetic variability on productivity and survivability of bees”**
- Definition of the role of environmental, genetic and pathogenic factors in mass bee colony losses



Publishing activity

www.jas.org.pl



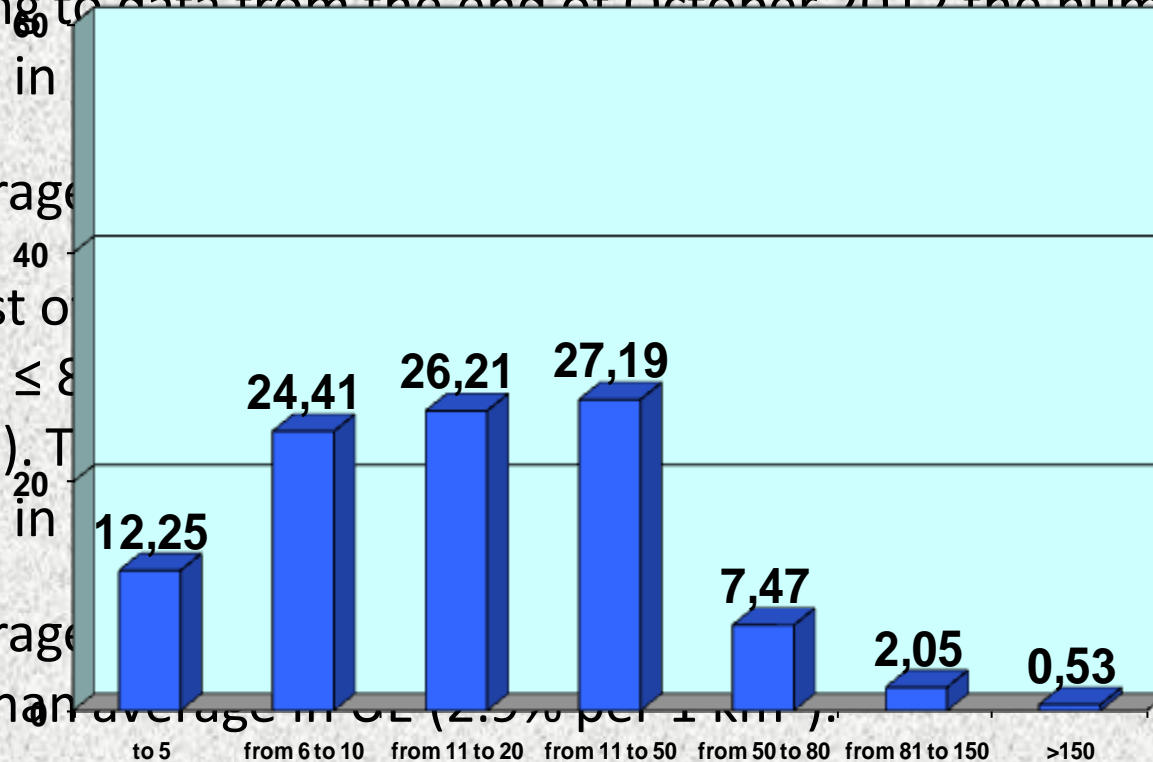
- Apicultural Division of the Research Institute of Horticulture together with [Polish Bee Research Association](#) publishes a scientific magazine in English "**Journal of Apicultural Science**" (**JAS**).
- **JAS** presents effects of actual research in apicultural range. It is the only one scientific magazine in Poland with that profile. It publishes scientific works from all apicultural centers in country and foreign countries.
- **JAS** is covered in: Science Citation Index Expanded – Journal Citation Reports, Biological Abstracts, BIOSIS Previews and Zoological Record.
- Impact Factor – 0,674



Present situation of beekeeping in Poland

Structure of apiary size in Poland

- According to data from the end of October 2012 the number of bee colonies in Poland is 1,25 million.
- The average number of colonies per apiary is 2,5.
- The most of colonies (27,19%) are in apiaries with 11 to 50 colonies. The number of colonies in apiaries with 11 to 20 colonies is 26,21%.
- The average number of colonies per apiary is higher than in other countries (2,5% per 1 km²).



Size of apiary, number of bee colonies



Research issues continued in Poland are:

- Impact of pesticides used in agriculture on food quality used by bees (nectar, pollen, bee bread, syrup) and their short- and long-term effect on biology and development of bee colonies.
- Identification of the pathogens in honey bee colonies from apiaries where losses of bees was observed, determination of interactions between them and their synergistic effects on the increased bee colony mortality.



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- Impact of long-term use of acaricides for *Varroa destructor* control on the quality of beeswax and comb foundation in relation to the condition of bee colonies.
 - Impact of beeswax and comb foundation adulteration with hydrocarbons of foreign origin on the bee colony mortality and development.
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- Influence of genetic variability of worker bees on vitality and adaptive capacity of bee colonies depending on the selection of genetic material used in artificial insemination.



Plans for the future

- *Conservation of native honey bee populations and wild pollinators (solitary bees, bumble bees)*
- *Influence of environment pollution on vitality and longevity of honeybees, quality of bee queens and semen of drones*
- *Enrichement of base of melliferous plants (food sources) – e.g. plant cultivation and forestation of westlands*





Thank you for attentior

