**Clostridium difficile IN HONEY**

**Authors**
Joanna Wojtacka¹, Marta Sołtysik¹, Beata Wysok¹, Agnieszka Wiszniewska-Łaszczych¹, Joanna Szteyn¹, Robert Karczmarczyk², Małgorzata Gomółka-Pawlicka¹

¹University of Warmia and Mazury in Olsztyn, Faculty of Veterinary Medicine, Department of Veterinary Public Health, Poland; ²Wrocław University of Environmental and Life Sciences, Faculty of Veterinary Medicine, Department of Epizootiology and Clinic of Bird and Exotic Animals, Poland.

**BACKGROUND AND AIMS**
Bee honey is perceived as a functional food due to its unique composition, antimicrobial properties and bifidogenic effect. As a natural product that can not be subjected to any processing it is exposed to contamination with ubiquitous bacterial spores which are of environmental origin and persist in honey under typical storage conditions. The presence of *C. difficile* spores in honey may pose a risk to induce CA-CDI especially to elderly who perceive honey as a natural remedy in many health problems including functional bowel abnormalities or natural intestine microflora support while using antimicrobials. The aim of the study was to evaluate the prevalence of *C. difficile* spores in directly sold honey produced in small apiaries usually located in the backyard of traditional farms in Poland.

**METHODS**

- **BHIS** (6 days, 37°C) anaerobic conditions
- **C. DIFFICILE BLOOD AGAR** (48 h, 37°C) anaerobic conditions
- **RAPID TEST** (GDH detection)
- **PCR** (tph gene)

**RESULTS**

- 23 samples
- 0 samples
- 0 samples
- 0 samples

**CONCLUSIONS**
This is the first report reviewing the possibility of honey contamination with *C. difficile*. Polish honey produced in small apiaries (up to 20 hives) was free from *C. difficile* spores which is of special importance due to the fact that so-called ecologic small apiaries promote their honey as part of healthy diet mainly to elderly and children.