6<sup>th</sup> International Conference of Rodent Biology and Management & 16<sup>th</sup> Rodens et Spatium, 2018, Potsdam

#### **Rodent Management – Session 2**

### Management of rodent pests in pig farming in North Rhine-Westphalia in Germany

#### **Odile Hecker, Marc Boelhauve, Marcus Mergenthaler**

University of Applied Sciences, Soest, Germany, odile.hecker@gmx.de

There is limited research focused on rodent control practices, usage of anticoagulant rodenticides and the acceptance of Pest Control Operators (PCOs) in domestic pig farming in Germany. In the present study, operation managers were offered the possibility to outsource rodent control to PCOs supported by a financial contribution of the North Rhine-Westphalian Animal Disease Fund (TSK) for two years. Data were collected from monitoring records of PCOs and personal interviews with farmers and PCOs. Of 47 farmers who were offered to participate, 33 joined the project. Despite the widespread opinion that the professional would not be worth it - we found that farmers financially profit from the work of the PCO, as calculated costs of pest control measures per operation on average did not greatly differ between costs incurred by employment of PCOs and costs that arise by farmers themselves. All PCOs used difenacoum and brodifacoum against pest infestations in each farm and the two anticoagulants, cumulatively accounted for 98 % of amounts of active ingredients of SGARs used within this study. By this, the infestation with rodents was reduced and most of the participating farmers assessed the project as success and employ the PCOs permanently. However, mapping the farm locations to resistance areas of the Rodenticide Resistance Action Committee (RRAC) shows that brodifacoum was frequently used in areas that are marked as areas that have no risk or rather are at low risk for resistance. If PCOs working in areas where resistances might occur, administer the highest potent anticoagulant available at present per se to avoid failure of pest control or if there are more today unknown resistance areas present in Germany, cannot be distinguished by the present data. Due to the alarmingly high quantities of brodifacoum used in the present study and the resulting risk for the environment, we highly recommend to further analyze the implementation practices of farmers and PCOs in livestock farming in Germany.

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#### **Editors:**

Jens Jacob<sup>1</sup> and Jana Eccard<sup>2</sup> <sup>1</sup>Julius Kuehn Institute, Federal Research Centre for Cultivated Plants, Institute for Plant Protection in Horticulture and Forests, Vertebrate Research, Toppheideweg 88, 48161 Münster, Germany <sup>2</sup>University of Potsdam, Institute of Biochemistry and Biology, Animal Ecology Group, Maulbeerallee 1, 14469 Potsdam, Germany

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