

Leaders of the *Ad Hoc* action: Jan Tomka (NC Slovakia, NPPC – Research Institute for Animal Production Nitra), Ewa Sosin (NC Poland, NRIAP - National Research Institute of Animal Production)

Report of the ERFP *Ad Hoc* action Identifying of Simmental cattle in Europe

1. Objectives (Summary)

The aim of this *ad hoc* action is to identify and characterize (phenotype, pedigree and breeding program) possible groups/subpopulations of animals within the Simmental-family populations in Europe, which were (partially) isolated and avoided the process of crossbreeding with other breeds, thus keeping the most of their Simmental genetic background. Simultaneously, samples from candidate animals will be stored for further genomic analyses.

2. Membership

- Coordination Jan Tomka (NC Slovakia, NPPC – Research Institute for Animal Production Nitra), Ewa Sosin (NC Poland, NRIAP- National Research Institute of Animal Production)
- Members of the team developing the AHA:
 - Tomas Nemecek (NC Czechia)
 - Beate Berger (NC Austria)
 - Melissa Raemy (NC Switzerland)
 - Srdjan Stojanovic (NC Serbia)
 - Piotr Kowol (Polish Federation of Cattle Breeders & Dairy Farmers)
 - Ivan Pavlik (Association of Slovak Spotted Cattle Breeders – Cooperative)
- Participants:
 - Mateusz Harabasz (cattle breeder, Poland)
 - Holger Goderz (Federal Office for Agriculture and Food, Germany)
 - Till Masthoff (German Livestock Association (BRS))
 - Pierre-Elie Richard (Simmental France)
 - Nina Moravcikova (Slovak University of Agriculture in Nitra)
 - Radovan Kasarda (Slovak University of Agriculture in Nitra)
 - Rachel Davis (NC United Kingdom, Department for Environment, Food & Rural Affairs)
 - Clara Nyegaard-Signori (NC Denmark, Ministry of Food, Agriculture and Fisheries of Denmark)

3. Activities in the past year and output/results

- The kick-off meeting of the AHA was held on January 15th in order to create a team and introduce its members. Members of the team shared the views and discussed the goals and activities of the AHA as well as the timetable.
- Draft of the questionnaire for collecting the data on populations was prepared and during the second online meeting (March 1st) members discussed this draft and further steps including timetable.
- Questionnaire was circulated to the members of the AHA and responses were collected. During the third online meeting (April 2nd) members of the AHA discussed first responses and planned further steps in identifying candidate subpopulations and planned personal meeting.
- Short report from the AHA was prepared and presented during the ERFP working groups meeting in Cyprus on April 23rd-24th. Based on discussions, additional questions were circulated. Questionnaire was sent to UK and Denmark thanks to ERFP members.
- During the fourth meeting in person (May 21st-22nd) participants discussed the results of all received questionnaires and responses to additional questions. They also visited two farms (one commercial herd, one with original type of Slovak Spotted cattle). Report from this meeting has been sent to ERFP Secretariat.
- Updated questionnaire (with additional questions) was circulated to the European members of the World Simmental Fleckvieh Federation, who are not members of the AHA.

- Responses from 9 countries covering 14 national breeds has been received to this date.

Country	Breed
Austria	Fleckvieh/Simmental
Czechia	Masny Simental, Cesky Strakaty Skot, Cesky Strakaty Skot – original
Serbia	Simmental
Switzerland	Simmental/Simmental Fleckvieh/Fleckvieh, Simmental (beef), Swiss Fleckvieh
Poland	Polish Simmental
Slovakia	Slovensky Strakaty, Masovy Simental
Denmark	Simmental
Romania	Baltata Romaneasca (Romanian Spoted)
Italy	Pezzata Rossa Italiana

- First findings relevant to the issue of transboundary breeds were sent to the TF Transboundary breeds:
 1. Breeds originated in Switzerland (Swiss Simmental) or based on imported Swiss Simmental breed

2. Different recognition of breed type (dual-purpose, milk, meat) in different countries and different breeding goals
3. In every country, utilization determines breeding goals but, in some cases, (Czechia, Poland, Slovakia), it is the reason for distinction of animals as separate breed
4. Organization of animal registration in herdbooks differs between countries
5. Herdbooks
 - a. herdbook for dual-purpose animals without sections dedicated to animals with milk or meat performance recording (Slovakia, Czechia, Serbia)
 - b. herdbook for dual-purpose animals with separate sections dedicated to animals with milk or meat performance recording (Poland, Austria)
 - c. separate herdbook for animals considered as milk or meat type within one breed (Switzerland, Poland)
 - d. separate herdbooks for meat animals considered as different breed (Slovakia, Czechia)
6. Exchange of animals between separate sections or herdbooks (cases 5a-5c), when the production goal or performance recording is changed, is possible. On the other hand, exchange of animals between herdbooks (case 5c and 5d) is not possible. Progeny of such animals are considered crossbreds.

- Original type of Czech spotted cattle has been described
- Subpopulation of original type of Slovak Spotted cattle in Slovakia has been identified
- Possible subpopulation of original Simmental cattle is under investigation in Poland
- Possible original type of Simmental cattle in Italy - Pezza Rossa Friulana was indicated with unknown status (crossbred with modern type including Fleckvieh since 1980s).
- No further subpopulations of original Simmental have been identified due to use of commercial insemination doses.

4. Plans and priorities for the rest of the year.

Communication and collection of more questionnaires is still ongoing. Drafting of paper on Simmental cattle for GENRES journal has started and should be finished by the end the year 2024. One more online meeting is expected to be held in September/October 2024 to discuss outputs including prepared article and further steps.

5. Other

Simmental: 1 185,64 € (budget not finalized, still in reimbursement process)

No other costs are foreseen.