**Reported by Beate Berger, NC Austria** 

# STRATEGIC PRIORITY AREA 1: CHARACTERIZATION, INVENTORY AND MONITORING OF TRENDS AND ASSOCIATED RISKS

Actions undertaken during the past year

Population trends

The Austrian cattle population is stable. The main breed in Austria - dual purpose Simmental cattle – is steadily increasing in numbers due to the ongoing trend from dairy to suckler cows. The same process is responsible for the stagnation of the Holstein Friesian. The other commercial breeds show stable or slightly decrasing numbers, all endangered breeds are increasing (table 1) Table 1 shows only subsidized breeding animals. Replacements and young stock are not included!

Small ruminants traditionally do not play a major role in Austrian agriculture but currently the numbers of dairy goats – mostly Weiße Deutsche Edelziege and Chamois Alpine - are increasing.

The commercial pig production is decreasing because of very low prices for pork and extremely high feed costs in 2008.

For most horse breeds no reliable data are available. The Austrian Equestrian Association estimates the current number of horses in Austria at more than 100.000 head.

Endangered breeds		Farms			
	1997	2008	2008	2008	2008
Cattle		Σ	Ŷ	ð	
Original Austrian Brown Cattle	40	414	400	14	133
Original Pinzgau Cattle	3624	4673	4531	142	815
Tyrolean Grey Cattle	3910	4054	4028	26	1097
Waldviertel Blond Cattle	133	740	711	29	105
Carinthian Blond Cattle	301	737	692	45	89
Tux-Zillertal Cattle	180	767	734	33	183
Pustertal Spotted Cattle		186	161	25	46
Murboden Cattle	299	2394	2272	122	360
Ennstal Pied Cattle		93	85	8	23
Sheep					
Carinthian Brillen Sheep	332	2746	2610	136	138
Brown Mountain Sheep	176	1572	1463	109	89
Tyrolean Stone Sheep	1732	1774	1676	98	107
Krainer Stone Sheep	69	767	694	73	31
Forest Sheep	160	712	651	61	58
Alpine Stone Sheep		264	243	21	24
Montafon Stone Sheep		93	74	19	7
Hungarian Racka Sheep	33	209	182	27	21
Goat					
Chamois Alpine Goat	566	1038	970	68	95
Pinzgau Goat	70	281	257	24	43

Table 1 – Subsidized breeding animals of rare breeds and participating farms 2008

Tauern Pied Goat	135	369	332	37	59
Styrian Pied Goat		72	61	11	10
Austrian Peacock Goat		92	82	10	22
Austrian Striped Goat		19	15	4	7
Blobe Goat (start 2009)		(57)			
Horse					
Austrian Draught Horse - Noriker	2738	2441	2279	162	1232
Old Austrian Warmblood Horse	18	10	8	2	3
Lipitsan Horse	66	25	20	5	8
Shagya Arab Horse	87	54	43	11	20
Hucul Horse		33	30	3	16
Pig					
Mangalica Pig		172	125	47	43
Turopolje Pig		92	71	21	27
total	14.669	26950	25500	1393	4911

Genetic characterisation of Austrian cattle breeds

The characterisation project was funded by the ÖNGENE. It showed that compared to other neighbouring populations the Austrian cattle population can be divided into 5 genetic clusters:

Brown cattle – Original Austrian Brown related to Original Swiss Brown, Original German Brown

Alpine Dual Purpose – Original Pinzgau, Pustertal Spotted, Tux-Zillertal, the latter related to but clearly different from Eringer and Evoléner.

Blond cattle – Murboden, closely related to German Gelbvieh; Waldviertel and Carinthian Blond, and surprisingly Ennstal Pied cattle which was reported to be heavily crossed with Simmental. This seems not to be the case as the highly endangered Ennstal Pied is clearly different from the Austrian Simmental.

Simmental – Austrian and German Simmental are genetically identic.

Holstein – The modern Pinzgau cattle has to be grouped with the Holstein because of replacement crossing of Original Pinzgau with Red Holstein. This result shows the importance of distinguishing between Original Pinzgau (endangered) and modern Pinzgau cattle.

Actions planned for the next year

Genetic characterisation "Blobe Ziege"

An isolated small population of grey goats of the mountain goat type was found in the border region between the North and South Tyrol. Historically the breed was called "Blobe Goas" meaning "grey goat" in the local dialect and was renowned for its hardiness and good milking abilities. The breed almost disappeared when most mountain farmers stopped to keep goats and modern breeders switched to the bigger Chamois Alpine. 68 animals were sampled for a characterisation project funded by the ÖNGENE. Results will be available at the end of 2009.

#### STRATEGIC PRIORITY AREA 2: SUSTAINABLE USE AND DEVELOPMENT

Actions planned for the next year

According to the current ÖPUL program all breeding, conservation and recording programs will be evaluated in 2010.

### STRATEGIC PRIORITY AREA 3: CONSERVATION

Actions undertaken during the past year

**CryoWEB** 

The CryoWEB module of the EFABISnet was successfully installed in Austria in March 2009. Currently the entering of all the passport data of the National Cryo Reserve is under way. The database now contains 4000 animals – sheep and cattle – and 1147 samples (31.07.2009).

Gene Banking

In 2008 49 bulls were added to the Austrian Cattle Archive.

In the Austrian Gene Bank 9 bulls (1 Ennstal Pied, 1 Pustertal Spotted, 1 Tux-Zillertal, 1 Waldviertel Blond, 2 Carinthian Blond and 3 Murboden), 7 rams (2 Alpines Steinschaf, 4 Montafoner Steinschaf, 1 Waldschaf), 3 bucks (1 Pinzgau Striped, 2 Tauern Pied) and 2 Mangalitza boars were added to the collection.

In the Farm Animal DNA Bank 108 new samples were stored.

Conservation breeding

A herdbook was opened for the Blobe Ziege and 68 animals were recorded. Until the results of the chracterisation project are available the Blobe Ziege is counted as highly endangered. The Salzburger Landesverband für Schaf- und Ziegenzucht is the breeding organisation in charge and the conservation program was established according to the recommendations of the ÖNGENE for highly endangered breeds.

Actions planned for the next year

As only about a third of the gene bank has been filled in the last years completion of the collections remains a priority. The *in situ* programs will carry on until 2013. Special care is necessary for very small populations and for populations with high  $\Delta f$  of more than 1% per generation.

## STRATEGIC PRIORITY AREA 4: POLICIES, INSTITUTIONS AND CAPACITY BUILDING

Actions undertaken during the past year Information stall at the Agraria 2008



The Agraria Wels 2008 attracted more than 350.000 visitors. The information stall containing poster presentations of all endangered Austrian cattle breeds as well as information material on conservation activities for endangered breeds was a highlight of the cattle fair.

## Artificial Insemination (AI) in goats

The Institute of Organic Farming and Biodiversity of Farm Animals applied for and succeeded in getting the official acknowledgement as training center for AI in goats. Interested farmers have to join a 3 day training course and are then authorized to do AI in goats on their own farms.

Actions planned for the next year

The workshop, tutorials and seminaries are on a yearly schedule. Additionally at least two training courses in goat AI are already fixed for autumn 2009.