



Ad hoc action

Identifying of Simmental cattle in Europe



Original Simmental (DAD-IS)




Original Simmental (DAD-IS)

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Activities

1.

description of selected populations belonging to Simmental transboundary breed (origin, phenotypic characteristics, performance, breeding goals, ex situ and in situ activities)

2.


identification and description of candidate subpopulations (history, connectedness to original Swiss Simmental, geographical location within the country, phenotypic characteristics, performance, possible special features)

3.


use of gathered information for further genetic research

Questionnaire with 77 Qs


Beef Simmental



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Members and participants




Deutsches Fleckvieh (DAD-IS)

- **Members:**
 - Beate Berger (NC Austria),
 - Tomáš Němeček (NC Czechia),
 - Melissa Raemy (NC Switzerland),
 - Srdjan Stojanović (NC Serbia),
 - Piotr Kowol (Polish Federation of Cattle Breeders & Dairy Farmers),
 - Ivan Pavlík (Association of Slovak Spotted Cattle Breeders – Cooperative)
- **Participants:**
 - Mateusz Harabasz (cattle breeder, Poland),
 - Holger Goderz (Chair of ERFP WG In situ, 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),
 - Clara Nyegaard-Signori (NC Denmark),
 - Ante Ivanković (NC Croatia),
 - Gita Jansone (NC Latvia)

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Responses



Slovenský strakatý

Country	Name	Use
Austria	Fleckvieh/Simmental	Dual-purpose
Croatia	Simentalac (Simmental)	Dual-purpose, beef
Czechia	Masný Simmental (Beef Simmental)	Beef
	Český strakatý (Czech Spotted)	Dual-purpose (milk)
	Český strakatý – original type	Dual-purpose
Denmark	Simmental	Beef
Germany	Fleckvieh-Fleisch (Fleckvieh-Simmental)	Dual-purpose (Beef)
	Deutsches Fleckvieh	Dual-purpose (milk)
	Ansbach-Triesdorfer Rind	dual-purpose
Italy	Pezzata Rossa Italiana	Dual-purpose
Latvia	Simmental	Beef
Poland	Polish Simmental	Dual-purpose
	Simmental	Beef
Romania	Bălțată Românească, Romanian Spotted – Simmental	Dual-purpose, beef
Serbia	Simmental	Dual-purpose
Slovakia	Mäsový simentál (Beef Simmetnal)	Beef
	Slovenský strakatý	Dual-purpose (milk)
Switzerland	Simmental	Dual-purpose (milk)
	Simmental - beef	Dual-purpose (beef)
	Swiss Fleckvieh	Dual-purpose

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First findings (already presented)

1. Different recognition of breed type (dual-purpose, milk, meat) in different countries and different breeding goals
2. In every country, utilization determines breeding goals but, in some cases, (Czechia, Poland, Slovakia, Denmark), it is the reason for distinction of animals as separate breed
3. Organization of animal registration in herdbooks differs between countries
4. Herdbooks
 - a. herdbook for dual-purpose animals without sections dedicated to animals with milk or meat performance recording (Slovakia, Czechia, Serbia, Italy)
 - b. herdbook for dual-purpose animals with separate sections dedicated to animals with milk or meat performance recording (Poland, Austria, Romania)
 - 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)
5. 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.

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First findings (already presented)

- 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 Simmetal 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.
- **Ansbach-Triesdorfer Rind** was reported as closely related breed (requirement of 5 generations of Simmental for registering in the herdbook)
- Cesky strakaty - original type (local - no import)
- Body frame smaller in local type
- Milk production lower in Swiss population and local type
- Functional longevity higher in beef and local type



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Herdbooks

A – separate herdbook for dual-purpose animals without sections dedicated to animals with milk or meat performance testing,

B – herdbook for dual-purpose animals with separate sections dedicated to animals with milk or meat performance testing,

C – separate herdbooks for animals considered milk or meat type within one dual-purpose breed,

D – separate herdbook for meat animals considered as different breed

	A	B	C	D	Import
Austria (Fleckvieh/Simmental)		x			Y
Croatia (Simentalac)	x				Y
Czechia (Český strakatý)	x				Few
Czechia (Český strakatý - original)	x				N
Czechia (Beef Simmental)				x	Y
Denmark (Simmental)				x	N
Germany (Fleckvieh-Fleisch / Fleckvieh-Simmental)			x		Y
Germany (Deutsches Fleckvieh)			x		Y
Germany (Ansbach-Triesdorfer Rind)		x			N
Italy (Pezzata Rossa Italiana)	x				Y
Latvia (Simmental)				x	Y
Poland (Polish Simmental)		x			Y
Poland (Simmental)				x	Y
Romania (Bălțată Românească, Romanian Spotted – Simmental)		x			N
Serbia (Simmental)	x				Y
Mäsový simentál (Beef Simmetnal)				x	Y
Slovenský strakatý	x				Y
Switzerland (Simmental/Fleckvieh)			x		Y
Switzerland (Simmental/Fleckvieh - beef)			x		Few
Switzerland (Swiss Fleckvieh)	x?				N

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Breeding organisations and breeders` associations

	No. of Breeding programmes	Breeding organisation	Breeders` associations
Austria (Fleckvieh/Simmental)	1	1	11
Croatia (Simentalac)	1	More	1
Czechia (Český strakatý)	1	1	1
Czechia (Český strakatý - original)	1	1	1
Czechia (Beef Simmental)	1	1	1*
Denmark (Simmental)	1	1	5
Germany (Fleckvieh-Fleisch / Fleckvieh-Simmental)	8	More	More
Germany (Deutsches Fleckvieh)	18	More	More
Germany (Ansbach-Triesdorfer Rind)	2	More	More
Italy (Pezzata Rossa Italiana)	1	1	1
Latvia (Simmental)	1		2*
Poland (Polish Simmental)	1	1	1
Poland (Simmental – beef)	1		1
Romania (Bălțată Românească, Romanian Spotted – Simmental)	3	More	
Serbia (Simmental)	2	2	
Mäsový simentál (Beef Simmetnal)	1	1	1*
Slovenský strakatý	1	1	1
Switzerland (Simmental/Fleckvieh)	1	More	More
Switzerland (Simmental/Fleckvieh - beef)	1	More	More
Switzerland (Swiss Fleckvieh)	1	1	1*

*-association manages more breeds

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Demographics

	Population size	Trend (10y)	Purebred females (HB)	Trend (10y)
Austria (Fleckvieh/Simmental)	1 389 324	ST	317 059	
Croatia (Simentalac)	120 000	DEC	72 000	DEC
Czechia (Český strakatý)	130 000*	DEC	125 000	DEC
Czechia (Český strakatý - original)	150-160	INC	100	INC
Czechia (Beef Simmental)	10 000	INC	3437	INC
Denmark (Simmental)	4946	DEC	2 558	DEC
Germany (Fleckvieh-Fleisch / Fleckvieh-Simmental)	n.a.		8 588	ST
Germany (Deutsches Fleckvieh)	2 800 000	ST	710 000	ST
Germany (Ansbach-Triesdorfer Rind)	277	ST	200	ST
Italy (Pezzata Rossa Italiana)	n.a.		90 000	ST
Latvia (Simmental)	1 157	ST	313	INC
Poland (Polish Simmental)	120 000	ST	7 600	INC
Poland (Simmental)	n.a.		780	INC
Romania (Bălțată Românească)	65 000*	ST	8 402	INC
Serbia (Simmental)	n.a.		166 249	DEC
Mäsový simentál (Beef Simmetnal)	6 142	ST	362	ST
Slovenský strakatý	124 723	ST	18 739	DEC
Switzerland (Simmental/Fleckvieh)	22 650**	ST	17 761	ST
Switzerland (Simmental/Fleckvieh - beef)	1 427**	ST	1 186	ST
Switzerland (Swiss Fleckvieh)	65 963	INC	34 637	ST

ST – stable, DEC – decreasing, INC – increasing

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Production systems

	Products	Herds	Size	System	Milking
Austria (Fleckvieh/Simmental)	N	14 497	21.7	IN	M
Croatia (Simentalac)	Y	9 000	10-12	SEMI	M
Czechia (Český strakatý)	N	500	250	IN (EX 50%)	M
Czechia (Český strakatý - original)	N	12	5.5	IN / EX	M
Czechia (Beef Simmental)	N	-	20	EX	-
Denmark (Simmental)	N	82	8	IN	-
Germany (Fleckvieh-Fleisch / Fleckvieh-Simmental)	N	-	-	EX	-
Germany (Deutsches Fleckvieh)	N	14 000	60	IN (EX 10%)	M
Germany (Ansbach-Triesdorfer Rind)	N	60	1-40	EX	M
Italy (Pezzata Rossa Italiana)	Y	5 000	12	IN	M
Latvia (Simmental)	N	-	-	-	-
Poland (Polish Simmental)	N	290	40	IN	M
Poland (Simmental)	N	-	-	-	-
Romania (Bălțată Românească)	Y	5 117	13	EX	M
Serbia (Simmental)	N	31 978	5.2	IN / EX	M/H
Mäsový simentál (Beef Simmetnal)	N	-	-	EX	-
Slovenský strakatý	N	200	175	IN	M
Switzerland (Simmental/Fleckvieh)	Y	984	16	EX	M
Switzerland (Simmental/Fleckvieh - beef)	-	60	19.8	EX	-
Switzerland (Swiss Fleckvieh)	-	2 400	17	EX	M

IN – intensive, EX – extensive, SEMI – semiintensive, M – machine milking, H – hand milking

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Breeding goals and actual performance	Milk (kg)	Height (cm)	Weight (kg)	Milk (kg)	Height (cm)	Weight (kg)
Austria (Fleckvieh/Simmental)	7 848	145/155	850/1 550	7 910	140/155	650-850/1 250
Croatia (Simentalac)	8 000	145/153	700/900	7 000	143/150	700/875
Czechia (Český strakatý)	7 000/8 000	142/156	700/1 250	8 156	150/160	737/1 150
Czechia (Český strakatý - original)	7 800/8 000	142/156	700/1 250	7 470	142/154	625/1 050
Czechia (Beef Simmental)	--	142/156	800/1020	--	139/147	606/885
Denmark (Simmental)	--	154/167	800/1 250	--		
Germany (Fleckvieh-Fleisch / Fleckvieh-Simmental)	--	147/157	800/1 200	--		
Germany (Deutsches Fleckvieh)	8 500	145/154	750/1 200	8 177	145/	
Germany (Ansbach-Triesdorfer Rind)	7 500	145/150	650/800			
Italy (Pezzata Rossa Italiana)	7 500	143	700	7 500	143	650
Latvia (Simmental)	--			--	142/152	625/1 000
Poland (Polish Simmental)	10 000	150/165	800/1 100	6 700	145/160	700/1 000
Poland (Simmental)						
Romania (Bălțată Românească)	6 500	139*	675		136/147*	580/1 085
Serbia (Simmental)	6 605 (5092)	145/155	678/1 100	6 605 (5092)	145/155	678/1 100
Mäsový simentál (Beef Simmetnal)	--			--		540/584
Slovenský strakatý	8 000	148/155	750/ 1 200	7 172	143/150	680/1 100
Slovenský strakatý (original type)	5 000		600/1 100			
Switzerland (Simmental/Fleckvieh)	5 500/6500*	144/160	725/1 200	6000	145/159	700/1100
Switzerland (Simmental/Fleckvieh - beef)	--	140/148	750/1 050	--	137/127*	700/562*
Switzerland (Swiss Fleckvieh)	6 000/7000*	145/159	725/1 200	7 000	145/159	700/1 100

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Longevity

	CE	Functional longevity	Lifespan production
Austria (Fleckvieh/Simmental)	1.47	4.1	32 615
Croatia (Simentalac)	3	4.5 (7y)	
Czechia (Český strakatý)	3	3.3 (6y)	29 649
Czechia (Český strakatý - original)	5	3.3(8y)	29 649
Czechia (Beef Simmental)	2	10y	--
Denmark (Simmental)			
Germany (Fleckvieh-Fleisch / Fleckvieh-Simmental)			
Germany (Deutsches Fleckvieh)	4.4	3.4	27 573
Germany (Ansbach-Triesdorfer Rind)	3	>4	
Italy (Pezzata Rossa Italiana)		5y	
Latvia (Simmental)			
Poland (Polish Simmental)	4.5	3.4	22 760
Poland (Simmental)			
Romania (Bălțată Românească)	5	7	
Serbia (Simmental)		7	
Mäsový simentál (Beef Simmetnal)	3	10y	--
Slovenský strakatý	<10	2.47	19 000
Switzerland (Simmental/Fleckvieh)	5	3.4	20 255
Switzerland (Simmental/Fleckvieh - beef)	2.6	8y	--
Switzerland (Swiss Fleckvieh)	5	3.4	23 553

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