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Perspectives of Beef Production with Suckler Cows under extensive Conditions in Slovenia and in the other Ex-Yugoslavian Countries

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Content

Introduction

Perspectives of Beef Production with Suckler cows in:

- **Slovenia**
 - History of suckler cow production
 - Present importance of suckler cows rearing
 - Future challenges
- **Croatia**
- **Serbia and Montenegro**
- **Republic of Macedonia**

Self sufficiency in beef production

Consumption of Beef

Future Development

Conclusions

Introduction (1)



- Suckler cows production enables higher quality of beef
- Breeding of suckler and foster cows has long tradition in many countries
- The breeding of suckler cows is encouraged with subsidies in EU countries
- The aim of suckler cow production are:
 - high percentage of weaned calves (90 – 95 %)
 - high weaning weight of calves
 - good quality of calves

Introduction (2)



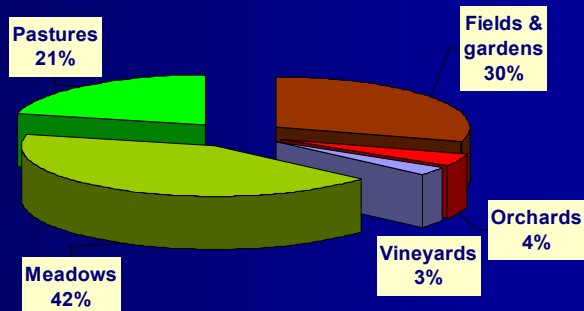
- The income in this branch of production is lower but it requires less work and investment
- It enable the use of marginal grass areas (specially in less favoured areas)
- The economy of production is affected by:
 - the ratio of expensive winter and cheap summer fodder
 - the length of grazing season
- The suitability of weaned calves depends on:
 - growth and carcass traits of suckler cows,
 - breed,
 - maternal (milk) traits of suckler cows

Introduction of Slovenia (in 2001)

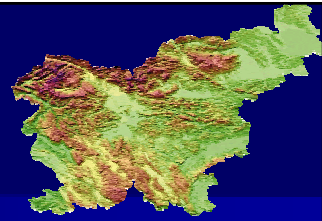


Surface area: **20,273 km²**
Population: **1,990,272**
Population density: **98.1 per km²**
Land boundaries: **1,334 km**
Share of forest land: **63.3 %**
Arable land: **8.6 %**
Share of utilized
agricultural area: **25.5 %**
Average size of farms: **5.1 ha of
agric. land**

The structure of Agricultural Land in use

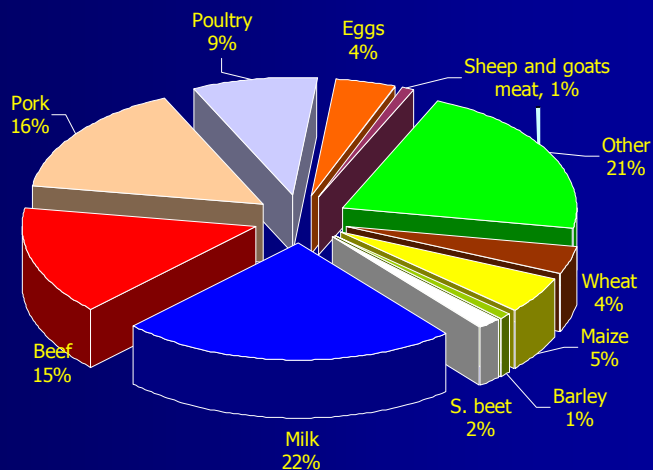


Natural Conditions



- Slovenia is country with less favourable conditions for agriculture
- 87 % of agricultural land lies in the regions with restricted conditions for agricultural production
- Unfavourable conditions causes lower productivity of farms, poor variety of plants and more expensive production
- These areas contribute a lot to the settlement, cultural outlook and ecological balance of the country
- **Small farms (6,5 ha agricul. land/farm)**

Value of Agricultural Production, 2004 (%)



The structure of Agricultural Land - consequences



- Slovenia is **ecologically sensitive** (a lot of gravelly and karst land)
- **Ethical** relation to production potential (soil and animals) **is necessary**
- Only **sustainable** forms of animal production have good perspective
- In Slovenia 20 % of animal units of cattle and small ruminants are reared by sustainable methods
- 4.4 % of agricultural land in Slovenia is under ecological farming control (14.2 ha/farm)

History of suckler cow production



- In the sixties encountered the shortage of quality beef
- Breeding of quality dual purpose Simmental and Brown breed – excellent calves for intensive fattening
- The production of beef and veal was always very important in Slovenia – export of young cattle to Italy
- 1973 experts advised the start of beef production with suckler cows
- 1978 experimental production of suckler cows in Logatec and on some farms
- Experimental results showed that for suckler cows are very useful not only beef breeds, but also dual purpose breeds Simmental and Brown and different Crossbreeds

Result of Slovenian Negotiation with EU

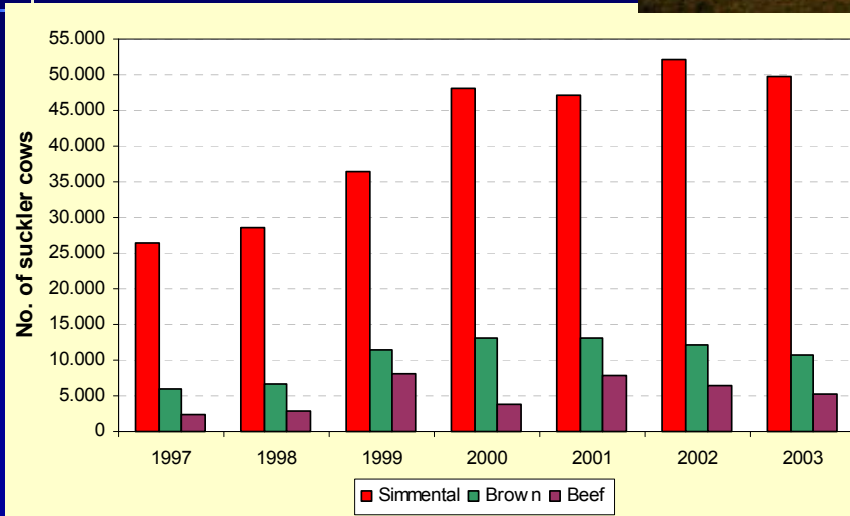
Product	Unit	Amount
Milk - total	tons	560,424
Reserve for the year 2006	tons	16,214
Sale to dairies – quota A	tons	515,743
Reference fat content	%	4.13
Direct sale – quota D	tons	44,681
Suckler cows	No.	86,384
Small ruminants	No.	84,909
Subsidies – bulls, oxen	No.	92,276
Slaughter subsidies	No.	196,989
Adult animals	No.	161,137

Number of Cattle, Suckler and Dairy Cows



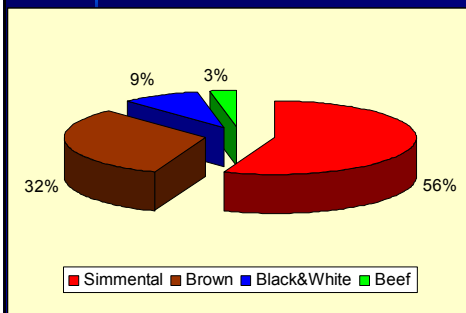
Year	Cattle - total	Dairy cows	Suckler cows**	Cows – total
1980	558,144	146,807	79,310	226,117
1985	577,206	166,252	56,299	222,551
1990	546,048	161,992	58,274	220,266
1995	495,535	137,532	74,786	212,318
2000	493,670	135,594	69,189	204,783
2002	481,514	113,599	70,837	184,436
2004	450,226	111,251	86,661	197,911

No. of Suckler Cows by Breed

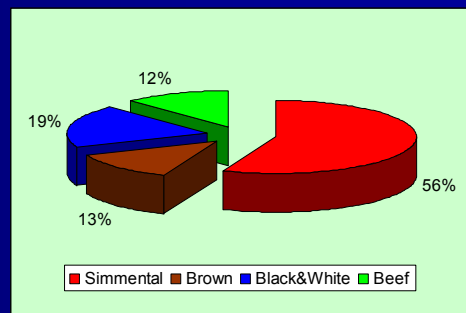


Artificial Insemination of Cattle by Breed

1985



2004



Percentage of AI

1985: 95 %

2004: 90 %

Future challenges



- the most important objective of suckler cow production is to wean calf every year
- the number of suckler cows has increased quickly
- spreading of economical cross-breeding Simmental or Brown breed with beef breeds
- to increase carcass weight of young fattened animals and to improve carcass and meat quality
- to secure subsidies / premiums for suckler cows
- the orientation to sustainable farming is the objective and need of preservation of agricultural production and countryside
- consumers consider adequate nutritional quality and ecologically and ethologically acceptable production
- Food Safety & Animal Welfare

Basic starting-points of agricultural strategy



- Family farm is the base of agricultural production;
- Slovenian agriculture is eco-social, multipurpose and market orientated;
- Slovenian agriculture can utilize all natural advantages, increases the income with better productivity and quality and it improves its own economic status;
- The main objective of Slovenian agriculture is the production of healthy and risk-free food;
- Slovenian agriculture follows exactly the common European agricultural policy;
- Sustainable extensive way of production can be advantage for us

Beef Production in Former Yugoslavia (in 1990)



Surface area: 255,804 km²
Population: 22,424,711
Population density: 87.7/km²
Land boundaries: 2,969 km
Share of forest land: 36.9 %
Agricultural land: 14,170,000 ha
Share of agricultural area: 55.5 %
Arable land: 9,805,000
38.3 %
Average size of private farms:
3.89 ha of agric. Land
Total number of cattle: 4,705,000
No. of cows & heifers: 2,816,000

Beef Production in Croatia (in 2001)



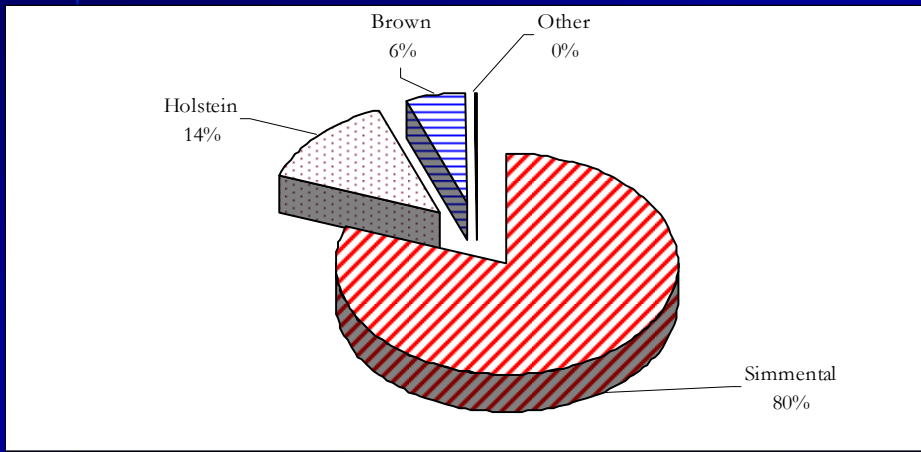
Surface area: 56,594 km²
Population: 4,437,865
Population density: 78.4 per km²
Land boundaries: 2,197 km
Share of forest land: 43.5 %
Share of agricultural area: 53.7 %
Arable land: 26.09 %
Average size of farms: 6.0 ha of
agric. Land
Total number of cattle: 427,000
No. of cows & heifers: 287,000

Percentage of AI

1985 – 72.5 %

2004 – 79.3 %

AI of Cattle by Breed (in 2004)



Number of cows and structure of beef production in Croatia

Production	No. of cows	No. of calves for fattening	Total veal production (t)	No. of excluded cows	Total meat production (t)	Total beef production (t)
Dairy cows	319.200	199.340	46.885	63.840	18.195	65.080
Suckler cows	14.112	9.243	2.371	2.399	699	3.070
Total	333.312	208.583	49.256	66.239	18.849	68.150

Subsidies and income regarding the production technology

Production	Subsidy per cow per year (kn)	Subsidy per milk (kn) (3.759 l x 0.65 kn)	Total subsidies per cow per year (kn)	Total income per cow per year (kn)
Suckler cows	1.500 (2.025)	-	1.500 (2.025)	5.100 (5.625)*
Milk	800	2.443,35	3.243,35	14.361,35**

Beef Production in Serbia and Montenegro (in 2001)



- Surface area: **102,350 km²**
 - Serbia: 88,412 km²
 - Montenegro: 13,938 km²
- Population: **10,394,000 (2000 year)**
- Population density: **101.9 /km²**
- Land boundaries: **2,598 km**
- Share of forest land: **28 %**
- Agricultural land: **6,217,000 ha**
- Share of agricultural area: **60.9 %**
- Cultivated land: **4,839,000 ha or 47.8 %**
- Arable land: **3,696,000 ha or 36.2 %**
- Share of utilized agricultural area: **Fallows and uncultivated arable land 190,000 ha or 5.1 % of total arable land**
- Average size of private farms: **5.29 ha of agricultural land**

Cattle Production in Serbia and Montenegro

Year	1992	1995	2000*	2002*
Number of cattle (in 000)	1,788	1,777	1,272	1,177
No. of born calves (in 000)**	220	201	128	119
No. of slaughtered cattle, total / in abattoirs (in 000)	765/248	873/231	755/131	650/121
Beef production in Serbia and Montenegro (in 000 tons)	111	123	103	97
Carcass weight, kg	145	141	136	149

Data only for Serbia, without data for Montenegro

Data for Serbia, missing data for Kosovo and Metohia

** Calves under 3 months

Percentage of AI

1985

35 %

2004

60 %

Breed structure of cattle in Serbia and Montenegro

- Simmental breed is prevailing
- Followed by the indigenous Brown cattle – genetically heterogeneous, containing basic characteristics of "Busha" and other autochthonous breeds
- 5 % imported breed Holstein Friesian

- the production of suckler cows is not known in this area (only 1000 cows)
- in Serbia calves remain and suckle their mothers for about 3 to 4 months
- Serbia has excellent conditions for production of suckler cows
- they have special subsidies for first calving cows only

Beef Production in Bosnia and Herzegovina (in 2001)



Surface area: **51,129 km²**
 Population: **3,835,777**
 Population density: **75 per km²**
 Land boundaries: **1,459 km**
 Share of forest land: **39 %**
 Agricultural land: **2,572,000 ha**
 Cultivated land: **4,839,000 ha or 47.8 %**
 Arable land: **14 %**

Total number of cattle: 420.000
No. of cows & heifers: 316.000

Beef Production in R. of Macedonia (in 2001)



Surface area: **25,713 km²**
 Population: **2,100,467**
 Population density: **76 per km²**
 Land boundaries: **748 km**
 Share of forest land: **38.8 %**
 Share of agricultural area: **49.2 %**
 Arable land: **25 %**

Average size of farms:

up to 3 ha (86 %)

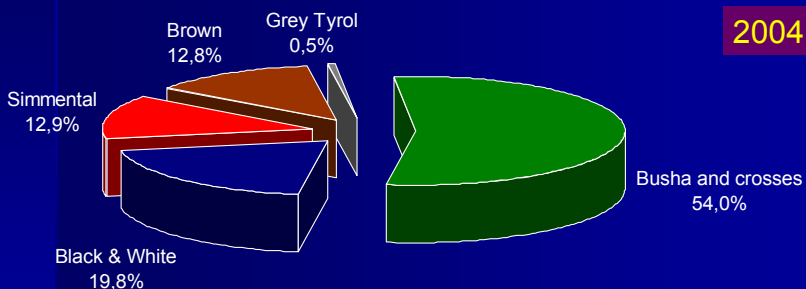
3-8 ha (11.5 %)

over 8 ha (2.5 %)

Total number of cattle: 265.000
No. of cows & heifers: 165.000

Artificial Insemination of Cattle by Breed in R. of Macedonia

Percentage of AI



1985: 25 %

2004: 20 %

Beef Production and Consumption in R. of Macedonia per Capita



Year	Beef production (t)	Beef production per capita (kg)	Beef consumption per capita (kg)	Self-sufficiency in domestic beef production (%)
1997	6,704	3.21	6.4	50.16
1998	7,987	3.55	6.8	52.20
1999	7,092	3.42	6.5	52.61
2001	5,835	2.92	5.8	50.20

Beef production: mainly from dual purpose and dairy breeds, and by cow and calf system at hill-mountain area.

Beef Production in Former Yugoslavia (in 2002)

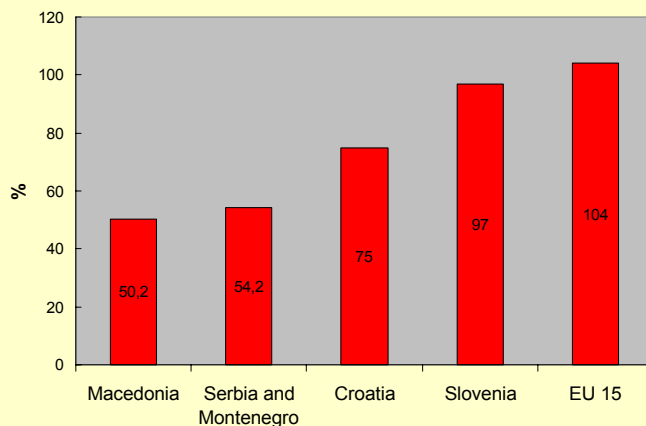


Country	Agricultural land, ha	Pastures, ha	Cattle total in 000	Beef production in 000 tons	Beef prod. in tons/km ² agric. land	Beef prod. in tons/km ² pastures
Slovenia	505 462	307 176	477	44.6	8.8	14.5
Croatia	3 181 000	1 564 000	488	24.0	0.7	1.5
Bosnia and Herzegovina	2 572 000	984 000	420		0.5	1.3
Serbia and Montenegro	6 217 000	2 521 000	1,162	97	1.6	3.8
Macedonia	1 244 000	655 000	265	13	0.6	1.1

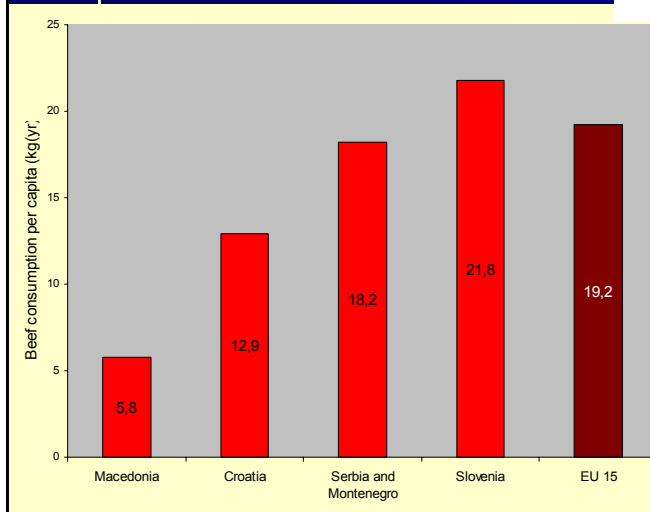
Self sufficiency in beef production (in 2002)



Self sufficiency in beef production (%) - 2002



Consumption of Beef per Capita (kg/yr)



Future Development



- ☑ Improve of reproduction traits of cattle
- ☑ Increase industrial crossing of local breeds (not endanger)
- ☑ Improve of carcass and **meat quality**, increase carcass weight specially of calves
- ☑ Improve of feed quality
- ☑ Diversification of the producers according to specialisation: milk, meat
- ☑ Introduction of identification of cattle, **traceability of beef**
- ☑ Notification and evaluation of production performance (recording in suckler herds – “SH”, from weaning to slaughter, in abattoirs, ...)
- ☑ Improve economic conditions for beef production (credits for farm buildings, mechanisation, breeding animals, subsidies for producers)
- ☑ Enforcement of **sustainable production** systems (production on pasture)
- ☑ **Animal welfare**
- ☑ **Food safety**
- ☑ Importance of beef (availability of Fe,...)

Conclusions



- ❑ Cattle production is characterised by unfavourable stage with the decrease of cattle population and reduced production of milk and meat, which is sufficient to meet the reduced needs for home market
- ❑ The area of former Yugoslavia gives good opportunities for increased number of cattle and higher quantities of produced beef and milk
- ❑ Possibilities for cattle production development exist in agricultural land, low level of home self sufficiency (also in EU) and production of more quality feed for cattle
- ❑ In some regions (R. of Macedonia) local cattle breeds prevail while in other regions (Slovenia, Croatia, Serbia) the Simmental breed is prevailing
- ❑ On the lowland of Croatia and Serbia there are excellent possibilities to grow quality crops
- ❑ Cattle production development should be focused on self sufficiency and export of quality beef and processed meat

Thank you for your attention