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PRODUCTS OF AUTOCHTHONOUS BREEDS IN SLOVENIA

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ELBARN Area Workshop
26–28 March 2009, Roznov pod Radhostem
Czech Republic

National policy on AnGR

Agriculture act (2008); Article 15:

Measures of agriculture politics should be aimed in development of the sustainable agriculture

With sustainable agriculture we maintain the biodiversity of animal and plant genetic resources, preserves the soil and its fertility when the protection of natural conditions for life in the soil, water and air.....

National policy on AnGR

Livestock breeding act (2002);

Chapter 6 – Conservation of genetic variability and genetic reserves of farm animals:

- Article 66: Conservation of genetic variability
- Article 67: Biotic diversity in animal husbandry
- Article 68: Indigenous breeds
- Article 69: Monitoring and analysing of biotic diversity in animal husbandry
- Article 70: Special protection of the indigenous breeds of *Apis Mellifera*

National policy on AnGR

Rules on conservation of AnGR (2004);

Chapter 2 – Biodiversity of farm AnGR:

- Article 3: Significance of farm AnGR (natural/cultural)
- Article 4: Register of breed...(regular monitoring)
- Article 5: Degree of endangerment (once a year)
- Article 6: State of use
- Article 7: Programme for conservation of farm AnGR
- Article 8: Breeding measures for conservation
- Article 9: Information system
- Article 10: International databases
- Article 11: Education and training
- Article 12: Raising public awareness and early warning
- Article 13: International cooperation

National policy on AnGR

- Process to adapt Multi-year Programme of Work for AnGR (2010-2017)
- Programme will be approved by the Government
- Performed by the Public service for AnGR
- Rules for the Public service were adopted in October 2008 by the government

Register of breeds – 2008

Breed group	No. of breeds	Breed. Prog.	Basic zotec. Charact.	Gene bank	Tissue deposit bank	Breeding value	Zotec. Assess. and measures
Autochthonous	13	12 (92,3%)	13 (100%)	9 (69,2%)	13 (100)%	5 (38,4%)	13 (100%)
Traditional	16	16 (100%)	16 (100%)	-	7 (43,8%)	13 (81,3%)	16 (100%)
Foreign	19	13 (68,4%)	19 (100%)	-	7 (36,8%)	6 (31,6%)	19 (95%)
Total	48	42 (85,4%)	48 (100%)	9 (18,8%)	27 (56,3%)	24 (50%)	46 (100%)

Autochthonous breeds in Slovenia

- Cika cattle
- Jezersko-solcava breed
- Bovec sheep
- Bela Krajina Pramenka
- Istrian Pramenka
- Dreznica Goat
- Krskopolje pig
- Styrian hen
- Carniolan Honeybee
- Karst shepherd
- Lipizzan horse
- Posavje horse
- Slovenian cold blooded horse

Autochthonous (historical documents, indigenous environment, breeding documentation, origin for five generation...)

Cika cattle

- Gorenjska region – Bohinj 30%, Kamnik and surrounding 35%; (past: Bohinj, Tolmin)
- Original cows 200kg; 5kg milk per day;
- Influenced by the Pinzgauer breed;
- Today – 20% of animals in required phenotype
- 1890 animals (49 pure breed bulls; 780 pure breed cows)
- Cultural value - preservation of Alpine-dairy farming in Alps



Author: Gregor Gorjanc

Products of Cika

Simčič (2009)

Milk type Cika – milk production;

Research - milk is main product on 5,7% farms

19% - combine milk and meat production

37,1% - selling calves

Milk, young cheese, cheese sold to the hiking tourists

Mohant – typical smell and taste; 1.5t per year; 6.7€; prot. geographical indication, other breeds are allowed;

Trnič – Velika Planina

Heavier Cika, larger frame, body weight...

Extensive beef production in cow-calf system in pasture

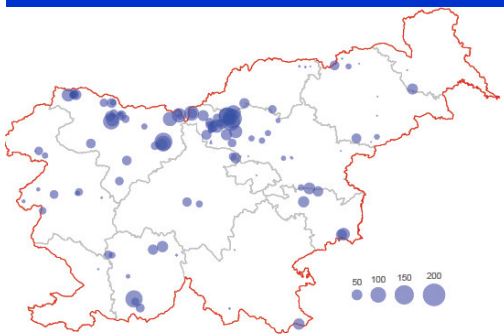
Beef - home consumption, minority sold in the neighbourhood; 5 agro tourisms offer cika beef, products – salami, sausages

Products are sold without any trade mark



THE JEZERSKO SOLCAVA BREED

- Autochthonous Slovenian breed;
- Rams (100 kg), ewes (65 - 75 kg);
- Tenacious, healthy, adapted environment;
- Twin lambs, litter size 1.5 lambs;
- Fertile year-round, mate - month after lambing;
- Breed environment - different parts of Slovenia;
- Population number – 17400, not endangered.



Jezersko Solcava lamb, wool products

- Charmingly beautiful archetypical landscapes of the Alps;
- Valleys Logarska Dolina, Matkov Kot, Robanov Kot, various agro tourisms and developed Alpine dairy;
- 50 farms - 15 supplementary activity;
- No research-on marketing; different personal contact—sold at home,



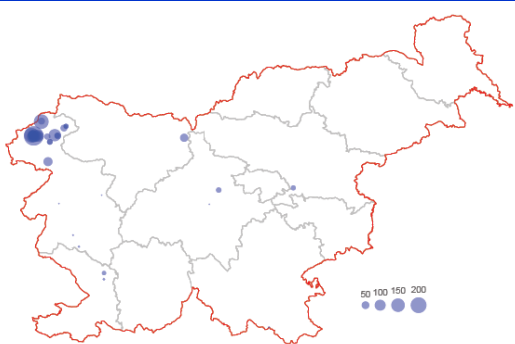
agro tourism;
slippers, clothes,
bags, toys,
jewellery.



THE BOVEC SHEEP

- Upper valley of Soca; town of Bovec;
- Bovec sheep - distinctive dairy breed;
- Rams (45-50 kg), ewes (35-40 kg);
- Breeding goal - harsh grazing, rearing conditions;
- Mountain Krn, Kanin, Mangart; jun-sep;
- 66 rams; 1866 ewes, at risk;
- 221 (300) kg; 6.3 % fat,

5.5 % proteins



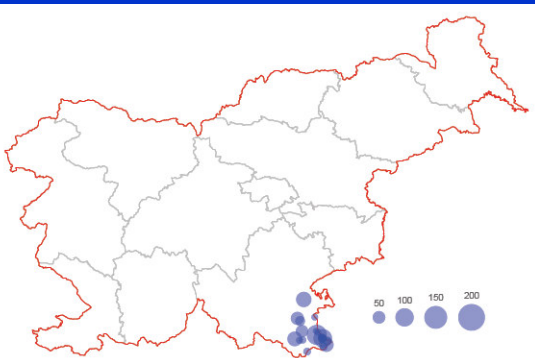
Bovec cheese

- Bovec - Julian Alps; winter, summer sports resort, starting point – mountains;
- 150 years; designation of origin;
- three farms - mountains; other in the valley;
- pure ewe milk, max. 20% of other;
- 12-13 (15) tons 40 – 60% higher;
- 24% No, 38% Yes, 38% try the cheese;
- Production-high expenses, scarce of feed;
- Addit. money (hobby) + regular work;
- Marketing – season, weather, No. of tourists.



THE BELA KRAJINA SHEEP

- Karst region of Bela Krajina;
- Poor resources – small animals;
- Max. 50 kg, rams max. 65 kg;
- Seasonally polyestric, average 1.22 lambs;
- Lambs 25 kg, third or fourth month;
- Thin bones - high killing out percentage;
- Pure breed animals – 29 rams;
687 ewes (endangered).



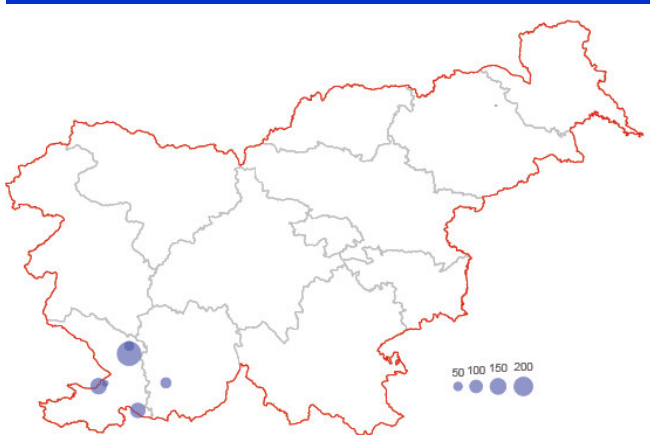
THE BELA KRAJINA LAMB

- Market - not organized, “black market”;
- Majority – restaurants, agro tourism, festivals (150, 70);
- restaurants preferred BP breed, better quality meat (tastier, juicy and sweet);
- thinner bones - easier to strip the skin off;
- products BP - higher price than other breed in the region.



THE ISTRIAN PRAMENKA

- Region of Karst and Istria;
- Dry old grass, skilful - finding fresh grass between rocks;
- Adaptability to relatively rough surroundings;
- Litter size - 1.19; 119 kg of milk;
- 7.2 - 8 % fat; 5.9 - 6 % protein;
- 36 rams; 813 ewes; endangered population.



Karst sheep cheese

- **Region of Karst - hundred's of years;**
- **Cheese uniqueness - specific karst environment, local breed, climate, soil, pasture composition, chemical, microbiological composition, storage conditions;**
- **Taste and smell are full, aromatic, slightly spicy charac.- sheep cheese.**
- **Tourists from Italy, local restaurants, home tourists.**



Karst lamb

- **Recognition - quality of meat, traceability;**
- **Pasture - very rich (grass, clover, herbs);**
- **Herbs 20-40%, aromatic essence;**
- **Product: very tasty meat;**
- **Labelled meat - Istrian pramenka or Jezersko solcava;**
- **Animals have to be born in the region of karst;**
- **Buyers – Italy, local restaurants, tourists.**



Drežnica goat

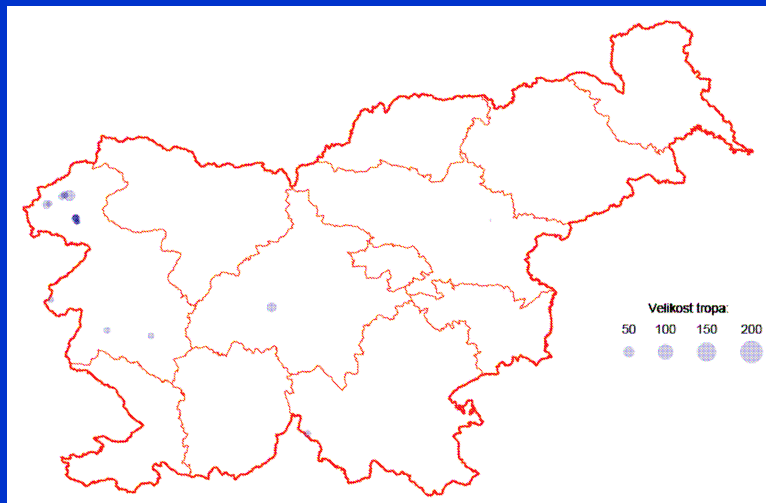
Origin - the north-eastern part of Slovenia, from the area of Drežnica and Bovec.

Characterised by high resistance, ability to adapt - extensive breeding, mountain areas.

Average weight 45-60 kg; black colour and different variation of black brown

446 pure breeding females/29 breeding males = endangered

From 27 flocks – 21 milk type of goat – 6 meat type of goats



Products of Drežnica Goat

- Milk recording 187 kg of milk/per lactation;
- 4.6 fat ; 3.7 protein
- Production of cheese, usually in combination with sheep and cow milk
- Sold at home, no trademark

Krškopolje pig - blackbelted



Author: Andrej Šalehar

In 2008 - 16 pure breed boar; 111 pure breed sows remain on 30 family farms

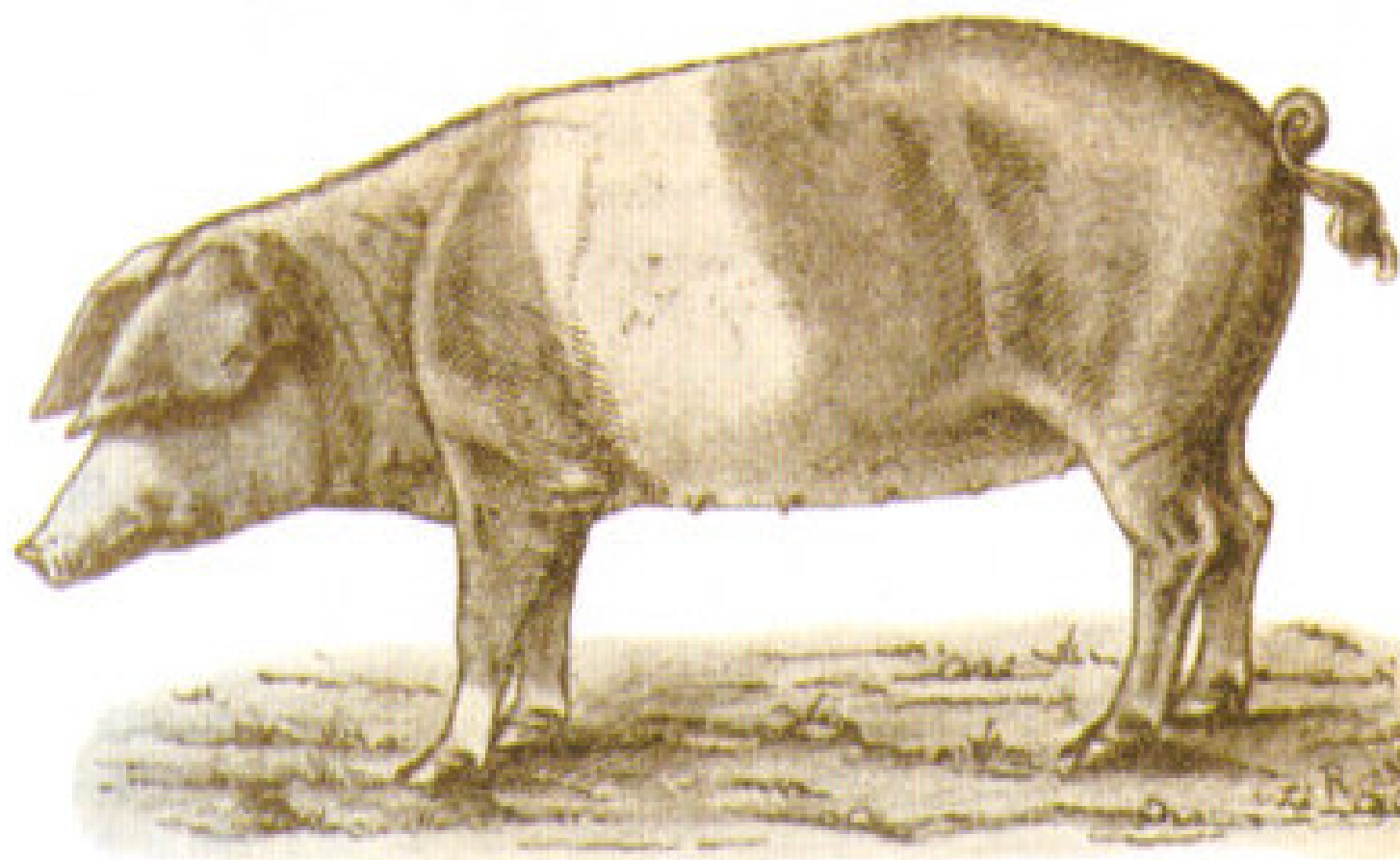
Origin – southeastern part of region Dolenjska;

First written document – 1851

Good adaptability, fertility (9.9 live piglets), high daily gain, high growth capacity, excellent meat quality

Products of Krškopolje pig

- Meat has intensive colour; baked – soft, juicy, aromatic;
- Meat - traditional sausage “Kranjska Klobasa”
- Air-dried ham (Pršut) in 1878 produced from the “black pig”;
- Higher price 2.20€ - 15% for animals with certificate than other commercial breed;
- Mainly pigs are produced for home consumption, some of the family farms offer meat through agro tourism;
- Restaurant**** in the capital offer the meat of Krškopolje pig;
- Three different privately owned butcher's shop realized the value of the Krškopolje pig and his meat
- They sell the meat on the request; butchery “Štajnbirt” bought 30 pigs last year (Personal contact: Andrej Kastelic)



Rohrman, 1899

Styrian hen

Southern part of Styria in Austria and the region between the rivers Mura and Sava in the Slovenian part of Styria;

Partridge-like hens - better layers , white - tender meat;

Styrian capon (note in 1352) - popular – tender, tasty meat (transport Vienna);

1930 – major role export,
good egg-layer for period;

Today - low productivity, no economic value, good genetic potential;

Energetic temperament,
resistance to disease;
capability to find food



Products of Styrian hen

(Holcman, Terčič, 2009)

- Laying – 130-160 eggs/year → 54 - 60.7g;
Different conditions:
53 weeks – 101 eggs; 130 eggs;
49 weeks – 215 eggs;
- Laying - modest compare to modern breeds;
- Less eggs - farm breeding than in farmyard conditions;
- Styrian Capon – quality meat, research - traditional breed has higher body weight, and better slaughter;
- Products are sold at home, no trademark, same price.

Apis mellifera carnica – Carniolian honeybee

Originate in Slovenia - we succeed in preserving the genuine qualities

Four ecotype regions (alpine - Northwest, Mediterranean - Adriatic Sea, dinaro-karstic – Southeast, Pannonian - Northwest)

Ability to defend - against insect pests; gentle behaviour towards beekeepers

Grey hairy stripe, chitin is dark or brown rings, dots, long tongue, high elbow joint very short hair



Products of Carniola honeybee



Both are protected –
designation of origin



Lipizzan horse

**Named by the town
of origin Lipica –**

Slovene region of Karst;

Classic dressage horse

for Spanish riding school;

**State in the register 2008 – 212 mares; 53
stallions**

Cultural value, recreational value



Posavje horse

**Slovene region of Posavje,
Krsko polje and Brezice
and neighbouring
Croatia;**



**Cross-breeding – coincidental, Belgian
cold blooded horse**

Small horse

Working horse, suitable

for production of slaughter foals

Slovenian cold-blooded horse

North-east of Slovenia - region of Gorenjska;

Base population from Murinsulaner type horse and cross with Noric stallions;

Friendly personality and calm temperament;

Riding horse and production of slaughter foals;

Good use of its food,
achieve a good size,
daily gain; excellent fertility.



Karst shepherd or Krasevec

- Several centuries old;
- Sheepdog in the Slovenian Karst area;
- Nowadays more family dog;
- More reliable guard dogs than other breeds.



CONCLUSIONS

- **Marketing—at home, Agro tourism, restaurant;**
- **Small production – can not fulfil expectation of wider market;**
- **Breeders are not aware of values; consumers????**
- **No marketing of products on national level;**
- **Subsidies from environmental programme are not enough, however – does money help?**

Thank you for your
attention!

