



Animal health and medicine use in Slovenia and some other Balkan countries

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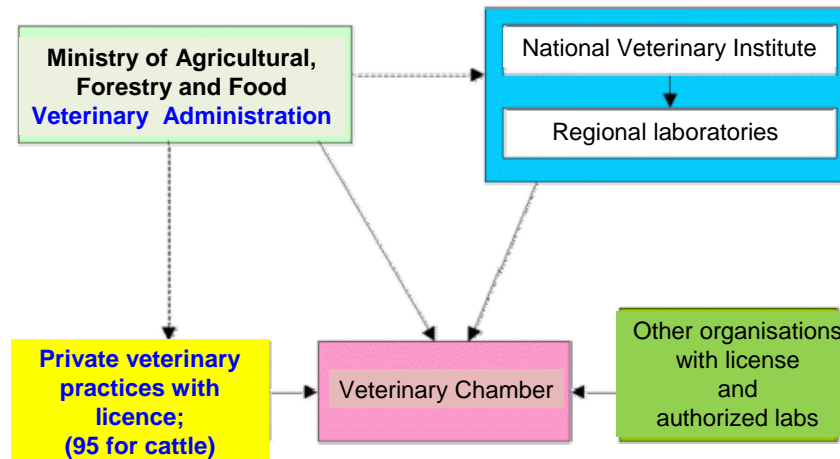
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Content

- Veterinary practice in Slovenia
- Mastitis – treatment & cases
- Dry-off treatment
- Guidelines to apply medicine for cattle
- Health status of dry-off cows – pathogens of udder infection
- Veterinary practice in Croatia
- Using of medicine in Croatia – case study
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Veterinary practice in Slovenia



Veterinary practice in Slovenia

- Three groups of cattle farmers:
 - Complete veterinary care for animals and monitoring
 - 40 % of herds with suckler cows/fattening bulls; 50 to 60 % of herds with dairy cows
 - Partly veterinary care for animals and monitoring
 - Calving, surgery, more complicated infections (pneumonia, acute mastitis, metabolic diseases)
 - Other treatments done by farmer (unofficial)
 - Border regions (buying medicine in Hungary, Austria, Croatia)
 - over Internet – medicine from the group of Ivermectin (parazite) – residual problematical)

Veterinary practice in Slovenia

- Frequency of diseases by dairy cows
 - 37 % mastitis
 - 10 % after calving diseases
 - 5 % surgery (dislocation of abomasum, C-section, teat surgery,...)
 - 3 % bovine respiratory complex
- 95% one-shot therapy
 - 5% repeated therapy after 24 hours
 - 6 injectors per infected udder quarter



Mastitis - treatment

- They use penicillin and synthetic penicillin (amoxicillin + clavulanic acid = amoxiclav)
- Average doses of active substance per dairy cow is:
 - 7500 mg penicillin (cow with 600 kg) – intermuscularity application
 - + 1200 mg of amoxiclav (in three days therapy) – intramamary application

Mastitis cases

- 36,6 % of dairy cows with mastitis (subclinical and clinical)
- More often with older cows and in summer time
- More often in the herds where *Staphylococcus aureus* are present
- Housing system influenced of frequency of mastitis (tied-in housing system, loose housing system on deep straw) – more often environmental pathogenes eg. *Streptococcus* and *Coli* formes
- Herds with higher hygienic standards have more often subclinical mastitis – *Staphylococcus aureus*

Dry-off treatment

- For about 22% of dairy cows they use dry-off treatment
- Less than 10% of dairy herds practice bacteriological analysis of udder quarters and monitoring of udder health and using of antibiotics



Guidelines to apply medicine for cattle

- Veterinary practice use uniform Guidelines to apply medicine to farm animals
- Guidelines were implemented from Veterinary Administration (VARs)
- Veterinary practice reported to VARs about total amount of using of antibiotics (but not by farms or by animal)
- First treatment for cows with mastitis is done by veterinarian who provides to farmer medicine for other 5 intramammary treatments (per 12 hours) – done by farmer

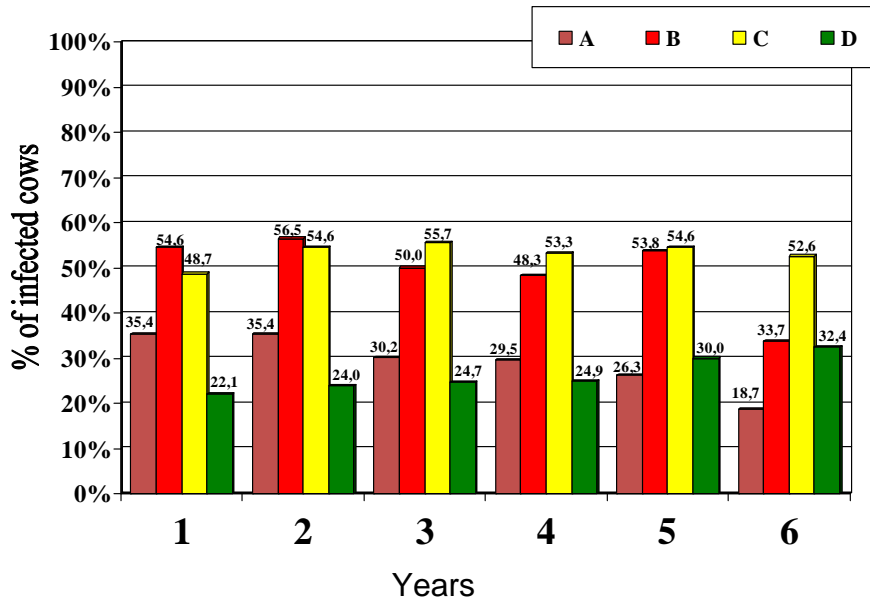
Health status of dry-off cows - udder infections

Case of 4 former state farms with HF cows (6 years results):

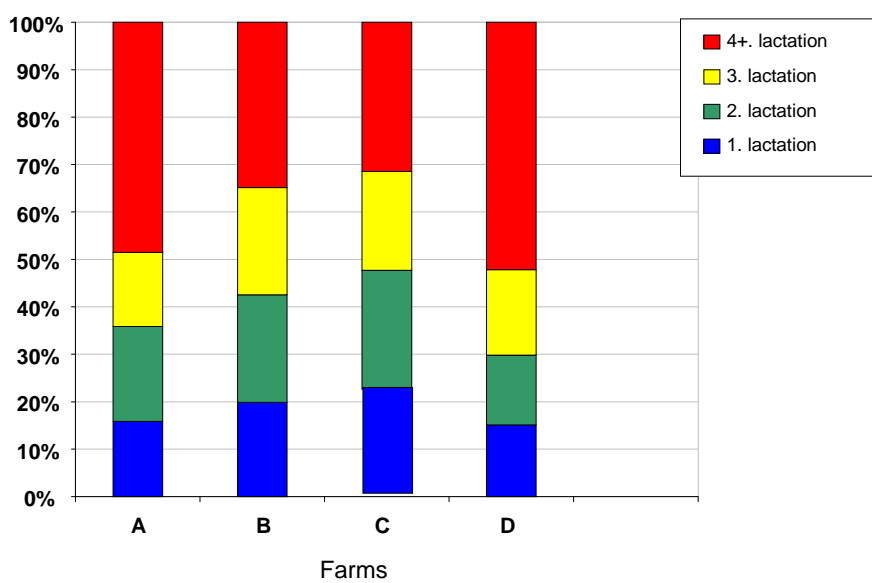
- All cows on the end of lactation were monitoring for udder health with bacteriological analysis of milk taken from individual udder quarters
- On the base of bacteriological results dry-off therapy was done only for cows with pathogens

Farm	Avg. no. of cows	No of cows with samples	No. of samples	No. of positive cows	No of infected quarters
A	388	1614	6.456	491	712
B	256	921	3.684	468	880
C	246	987	3.948	526	999
D	191	821	3.284	211	311

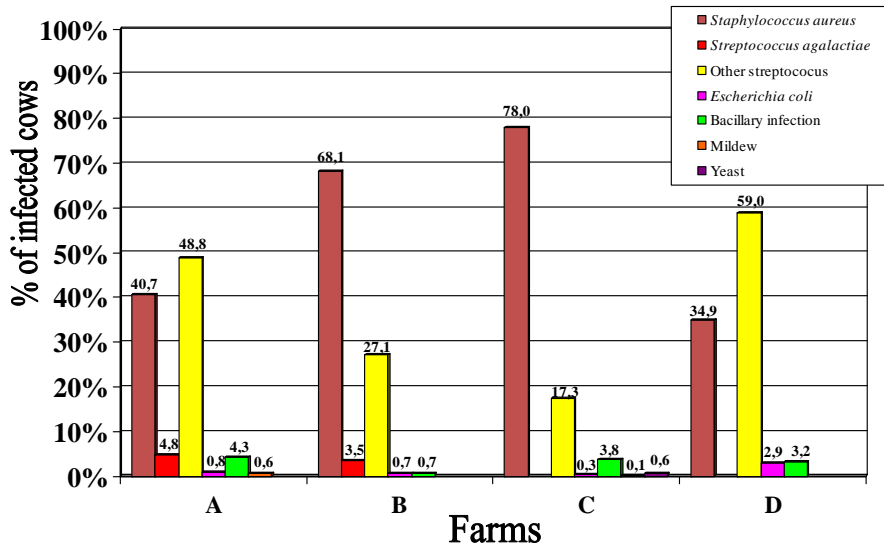
% of cows with mastitis on four farms



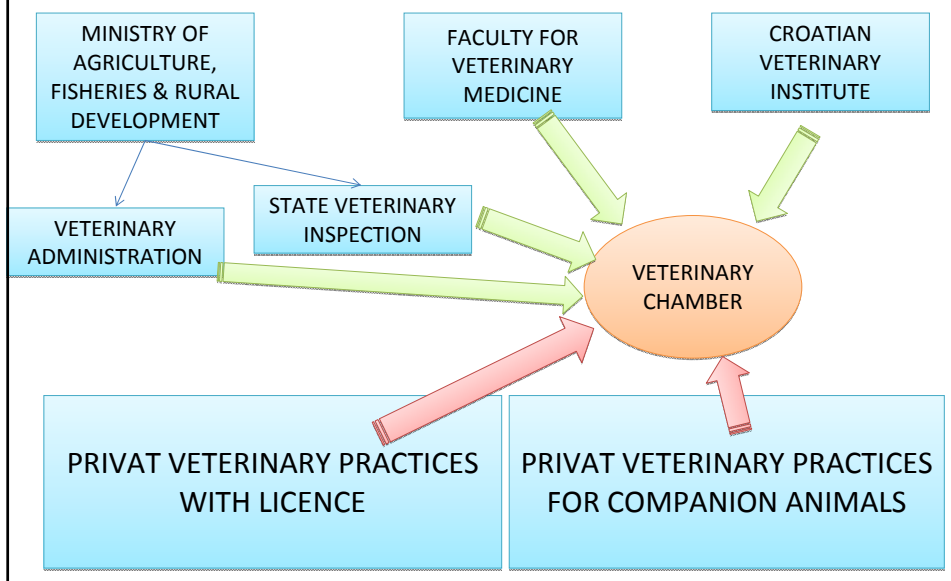
% of cows with mastitis by parity



Percentage of cows with mastitis on 4 farms by type of pathogens



Veterinary practice in Croatia



Using of medicine in Croatia – case study

Farm	Total amount of active substance, mg	No. of cows per farm	Average amount of antibiotics per cow, mg	Breed
A	238.850	26	9186,5	HF
B	533.600	77	6929,9	Sim, HF
C	93.650	21	4459,5	Sim, HF
D	166.600	34	4900,0	Sim, HF
E	203.450	20	10172,5	Sim, HF
F	177.750	9	19750,0	Sim, HF

Using of medicine in Croatia – case study

- Annually testing on 5% of animal products for AB traces
- Test in 2009 – 2 suspicious – later confirmed negative
- Farm level – drug administration protocol (filled by vet)

Conclusions

- Slovenia and Croatia – very well organised private veterinary practice – farm service 365 days/year and 24 h/day
- Data on medicine used – on farm & Veterinary practice level

PROBLEMS!!

- Many farms don't have complete data – animal treatment, diagnosis, carence, antibiotics amount
- More and more illegal using of medicine (black and grey market) on farm level

SOLUTION - MORE CONTROL NEEDED!!

