

Significance of fast ultrasound herd scanning on pregnancy in dairy sheep, practical approach and results

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Introduction:

- ◆ pasture in large herds
- ◆ seasonal cyclicality



harem breeding



natural mating

complicated monitoring and control of
reproduction and breeding

Goal of reproduction management

- ◆ exact number of pregnant ewes in herd
- ◆ number of pregnant and nonpregnant animals and approximately gestation stage for each animal

- ◆ impossible to apply individual approach (detail gynecological examination)
- ◆ The compromise between profitability and exact diagnostic tools **fast ultrasound herd scanning**

Fast ultrasound herd scanning

- ◆ fast
- ◆ simply
- ◆ practical
- ◆ minimally invasive



We need:

1. milking parlour
2. team of one expert and two assistants
3. Ultrasound with linear or sector probe

How to perform:

Put sector or linear probe for transabdominal checking (different angles, crosssections of uterus, W shape) of ultrasound on udder basis and change angles till confirmation 30 seconds is usually enough time



Accuracy depends on pregnancy stage!!!!

- ◆ pregnancy 75-120 days- safely and quickly determination in 30 sec.
- ◆ Early (25-75 days) and late pregnancy (120-150 days)-individual approach for confirmation
- ◆ Accuracy of method all together aproximatly 97%

25-75 days pregnancy



75-120 days pregnancy



120-150 days pregnancy



Confirmation of pregnancy in problematic herds:

Blood sampling and determination of:

- ◆ progesterone
- ◆ PAG (pregnancy associated glycoprotein)
- ◆ leptin

In our study:

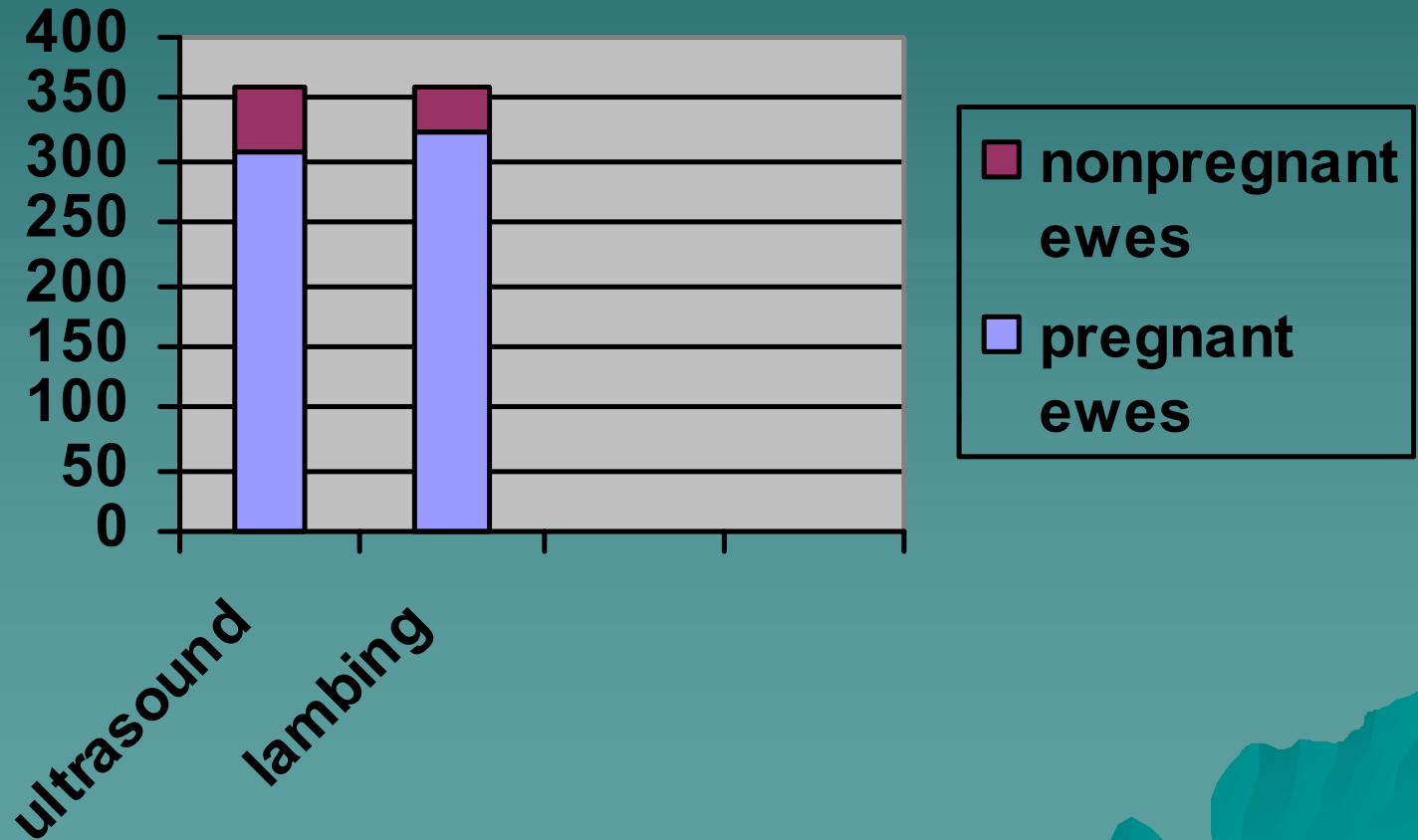
- ◆ 360 ewes of sardinian breed
- ◆ Two teams (one expert+two assistants)
- ◆ Two days

Number of ewes, results of ultrasound checking and lambing

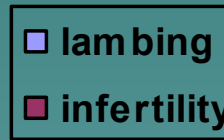
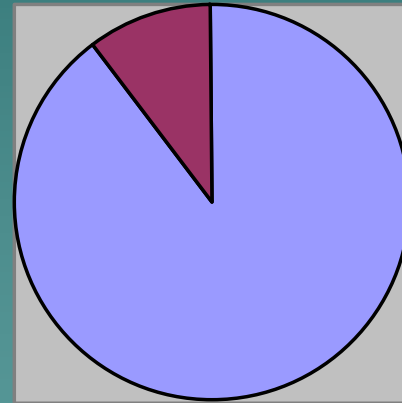
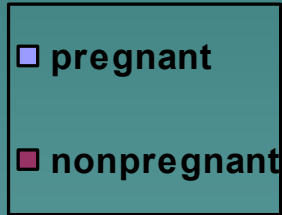
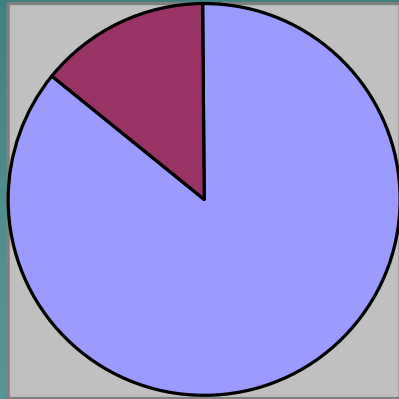
	25-75 days	75-120 days	120-150 days	Nonpregnant ewes
Ultrasound	*36 (10,4%)	*250 (69,4%)	*23 (6%)	51 (14,2%)
Lambing	47 (13,1%)	250 (69,4%)	26 (7,2%)	37 (10,3%)

*Number of ewes pronounced pregnant

Number of pregnant and nonpregnant ewes after ultrasound checking and lambing



Comparative results of positive pregnancy diagnostic and lambing



Conclusions

1. We could, using ultrasound herd screening, exclude pregnancy with 97% accuracy and mistake of 3%
2. Method is fast, accurate and doesn't affect normal daily procedure on the farm
3. All suspicious animals could be confirmed using individual examination in sitting position and on basis of laboratory tests.



Thank You for attention and time!!!!

