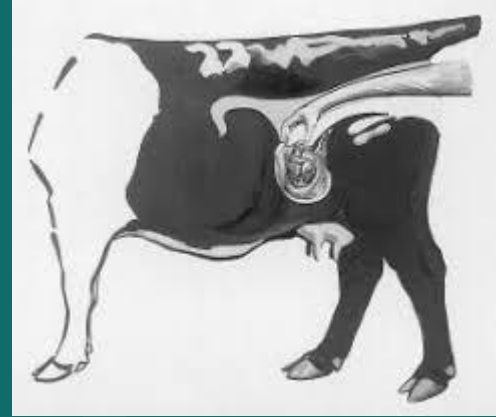


Pregnancy diagnosis:

Why
How
When



Why?

- What are the benefits of pregnancy diagnosing?
- It provides data to make more informed and strategic decisions.
- Known due dates can help to plan feed resources, weather related disease prevention, marketing, adjust stocking rate, replace unproductive cows, etc.
- To identify empty cows: would I keep her for another 12 months without weaning a calf?
- Feeding an empty cow(s) + other management, labour, health costs associated.
- Aged pregnancy diagnosis will identify early and late calvers.
- **Excellent tool to identify early potential reproductive problems in a herd.** Pesti, vibriosis, crook bull, etc.

Why?

- Fertility is a trait with not very high heritability, however is not equal to zero. Not fertile, subfertile cows kept in the herd may impact overall fertility in the medium and long term.

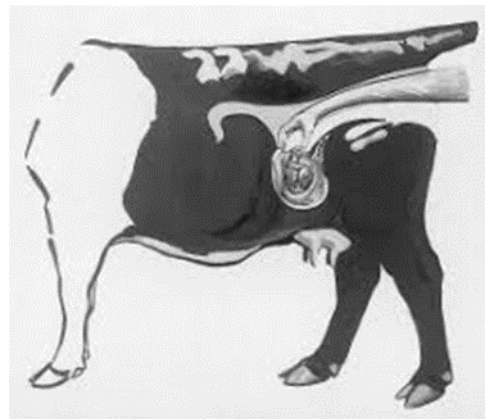
Trait	Heritability Estimate
Fertility	.10
Birth Weight	.45
Weaning Weight	.24
Yearling Weight	.44
Quality Grade	.50

Source: *A summary of genetic and environmental statistics for growth and conformation characters of young beef cattle. Departmental Tech. Rpt., number 103, second edition, Texas Ag. Exp. Station, Texas A&M University, College Station, Texas.*

How?

- **Manual Palpation**

- The gold standard for non-pregnant cattle.
- Palpation of the entire non-pregnant uterus and ovaries.
- 100% accuracy for Not-Detectable Pregnancy < 6 weeks.
- Less accurate for aging pregnancies.



How?

- **Ultrasound**

- Good to detect most of pregnancies.
- Probe inside the cow emits sound waves.
- Image generated on a screen/goggles. Black is fluid, white is solid tissue (calf bones, placenta, pus in uterus, etc.)
- Difficult to examine the entire non-pregnant uterus.
- It shouldn't be used alone to call a cow non-pregnant.
- It has multiple vet diagnostics benefits.



How?

- **Blood Test**

- Technology has improved a lot during the last years.
- Not diagnostic in 4% of animals (need rechecking).
- Cows must be 60-73 days post calving.
- If embryo dies it will show false positive for up to 73 days.
- Doesn't tell the age of the calf.
- Result is not instantaneous.
- Not useful for one time culling decisions.
- It can be useful with very low numbers <10 cows and far locations.



How?

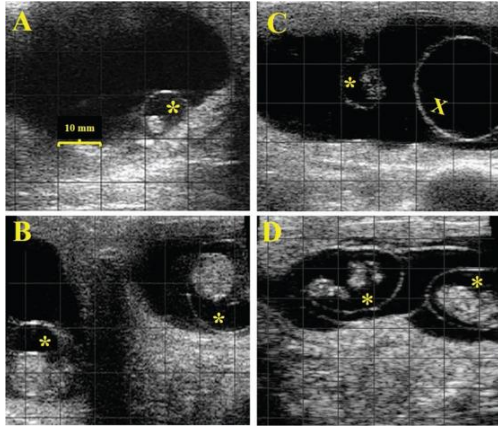
“Pregnancy diagnosis is better done with a combination of manual palpation and ultrasound.”

Extra benefits of ultrasound:

- Allows diagnosis of twins, foetal mummies, assessment of embryo viability, detects abortion occurring, pus in the uterus.
- Instant decisions to treat straight away, cull, or wait.
- Allows to know the age of foetuses by measuring calf's body parts.
- Examination ovaries: cysts, activity, inactivity, tumours. Cull or treat?

Farm's Requirements:

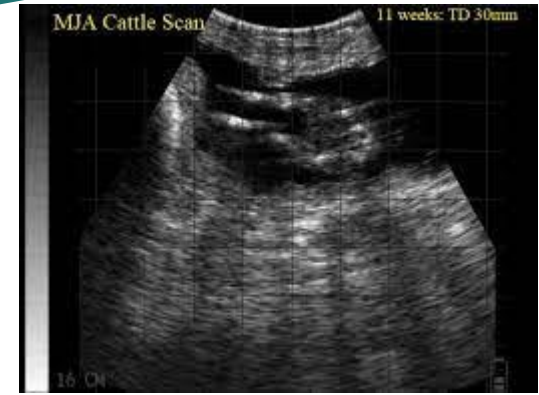
- Secure and safe crush for the operator and cow. If cow is too mobile there is a risk of rectal perforations (low but not nil).



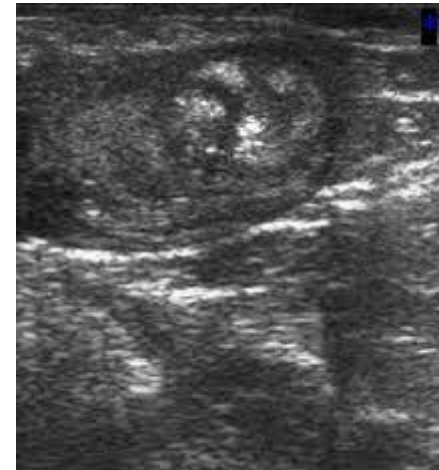
Twins



7.5 weeks embryo



11 weeks embryo



Pyometra:
Pus in uterus

When?

- It will depend on your system, plans, goals.
- Some people happy with YES or NO. Any time 6 weeks to 8.5 months of pregnancy.
- If you want more detailed and useful data, then **early testing** is needed.
- Aging of the calf is better done and much more accurate between 6 to 15 weeks of age.
- Embryos growth at a similar pace/rate until 15 weeks. Afterwards, same age embryos can grow at different rate.
- Aging pregnancies for a 3 cycles mating: can be done minimum 6 weeks after the bull left the cows. Pregnancies would be between 6 and 15 weeks.
- Premium data: To plan ahead, to sell lates, to sell them all, get a vet certificate, to differentiate AI/ET calves from mop-up bull.

Cost vs Benefit?

- Cost of feeding **one empty cow** for another 12 months:

A 550 kg dry cow can maintain her condition on reasonable quality hay and would require 8.6 kg of hay fed/day out to maintain her weight/condition.

- Hay cost: \$936-1,550 (depending on the hay price).

Thanks

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