Use of reproduction technologies in the future

- VG strategy

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VG strategy

- Our strategic goal is to keep three world wide competitive dairy programs / breeds in the future
  - VikingRed
  - VikingHolstein
  - VikingJersey

- Goal is 3 NTM units annual genetic progress

- Political acceptance of making the necessary investments in the smaller breeds
How to optimize genetic progress?

- Optimize use of:
  - Males
  - Best females

Main topic in the presentation
Optimize use of best females

- Reproduction methods:
  - Embryo transfer (ET)
  - OPU / IVF
  - Biopsies

- VG has a coordinator role to ensure that we optimize use of available reproduction methods

- ET is the common and most reliable method
  - We have not succeeded to have a satisfactory ET setup in Sweden based on liberal initiative.
  - We (VG and Växa) have full focus to improve
Other reproduction methods

• OPU/ IVF
  • Method well-known for years
  • Projects with MTT and AU
  • MTT ready to implement in practice during 2014
  • AU project a little later

• OPU seen as a supply to ET
  • Not an alternative to take over from ET
  • We still need final permission to use OPU in field
  • OPU can help us to increase diversity by using different/several sires of sons on each donor

• Practical results will show how much VG will use the method in the future (cost / benefit)
Use of biopsies

• Biosies can help us to GS test embryos before implantation in the recipients

• Problem is that so far it has not been possible to freeze embryos from where a biopsy has been taken

• When the metod becomes more reliable and it is possible to freeze the embryos – VG is ready to use the method
  • …If cost effeicient !!
Use of repro technologies in the future

- All GS tested bull calves from ET / OPU ??
  - Probably not
    - Because…. NTM loyalty in all herds
    - High genetic level in almost all commercial herds in VG countries
  - But if we can create several generations in the laboratory so generational interval can decrease dramatically – the scenario can happen

- Cloning

- Do our members accept these techniques or are we going too far ?
  - How do we balance ethical questions compared to profit ?
• Comments appreciated