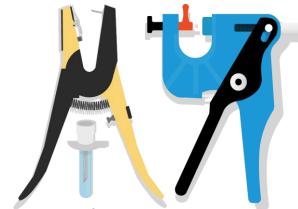
Tissue Sampling

An important element in Animal Health...



Global leader in livestock identification, traceability and monitoring.

Tissue sampling since 2008...



- Since 2008 several countries and regions have implemented a BVD eradication schemes using Tissue Sample Tags (TST's) and more to follow
- Since 2008 more then 75 million animals have been tissue sampled with an Allflex tool
- Tissue Sampling is being used for both disease and DNA purposes
 - BVDV eradication & diagnostics
 - Parentage verification
 - Genomic selection
 - Marker assisted breeding
 - Animal & Food traceability
 - Economic breeding selection (Dairy Beef)





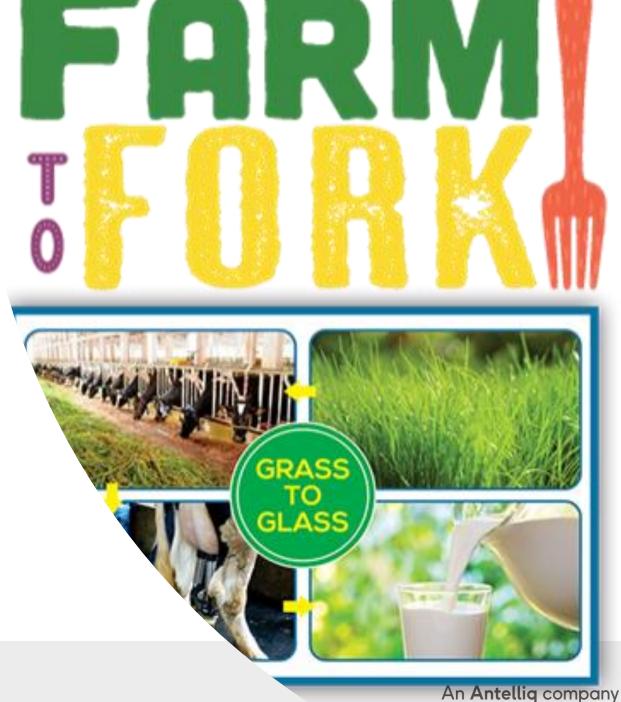
Sampling at birth ...

- Today the Allflex sampling tools allow to sample an animal at birth, do a first test and retain the tissue for future DNA analysis
- This can be done by an ICAR approved identification & sampling tag (TST) or independent tissue sampler (TSU)
- No need to resample



Today...

- We are already sampling in several countries for A2 milk markers
- We are also sampling for meat traceability and authenticity
- We are equally storing samples for later use
- We can geo-localize animals using EID and add the act of taking a tissue sample





The future...

- Work is being done on TB & ParaTB resistance traits in cattle
 - Optimizing health will be an important genomic selection criteria!!!
- The increase in DNA sampling will go faster, due to genomic selection and sequencing
- Full traceability and transparence will be essential attributes in farming
- Animal Welfare, Animal Health and Traceability will equally be important



