

#### THE NETHERLANDS

### NATIONAL DEROGATION IN ANIMAL HEALTH LAW FOR COLLECTING, STORAGE, AND USE OF GENEBANK MATERIAL (CATTLE – SEMEN)

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### Outline

- Intro slide Dutch national gene bank for farm animals
- A bit of history
- Derogation details
- Further needs



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### Genebank collections of CGN - WUR

pecies	Breeds	Donors	Doses	Birth years donors
	26	6,682	269,811	<b>←</b>
F	12	364	34,672	←>
Em 1	36	802	22,614	←──→
	31	270	18,652	<b>←</b>
Ed	6	100	7,037	$\longleftrightarrow$
M	15	148	5,449	·
	8	62	1,889	↔
\$	4	67	1,569	$\leftrightarrow$
M	7	20	257	$\longleftrightarrow$
<b>₹</b>	1	11	102	<b>*</b>
	146	8,526	362,052	1959 2022

Status July 2022

- National gene bank, recognized by MoA
- To support the conservation of native, Dutch endangered breeds
- To facilitate back-up collections of breeds that have breeding program in the Netherlands
- Member of EUGENA



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# A bit of history (1)



- Classical swine fever outbreak/crisis in 1997/98
  - Semen collection centre was involved in spreading of disease in the Netherlands
  - Followed by decision only pig and cattle semen that is collected at recognized semen collection centres can be used/traded, both national and international
  - One exception farmers are allowed to collect semen on farm, that can only be used on the same farm
  - Problem genebank (cattle) and also private breeders did not comply with legislation anymore
- Derogation needed for national genebank, to support the conservation of endangered breed
  - Gene bank should have opportunity to collect semen on farm (practical and veterinary reasons), store material in the central genebank, and distribute the material to other farms
  - Old material (1960s onwards) should be allowed to use, in case it is considered to be safe

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## A bit of history (2)



- Couple of years of discussion with Ministry of Agriculture (MoA) and Dutch Food and Consumer Product Safety Authority (NVWA)
- Advise from veterinary scientists/experts risk assessments
- MoA/NVWA officially granted derogation in 2012
  - Specifically for CGN (cattle, conservation)
  - Not so much supported by (export oriented) livestock breeding/AI sector
  - Some opposition by some private farmers/breeders who claimed the same rights/derogations as the national genebank/CGN.



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### Derogation letter (1-5-2012)



- Derogation by Ministry of Agriculture Dutch Food and Consumer Product Safety Authority (NVWA)
  - For CGN-WUR only recognized national/public livestock gene bank
  - Conservation purpose (genetic diversity and cultural heritage)
- Key conditions of derogation (1):
  - Derogation (on farm collection of semen) restricted to a defined list of native, Dutch cattle breeds
    - Risk status of breeds: endangered or vulnerable
    - Max 5 bulls/breed/year
  - Semen can only be used in the Netherlands, export not allowed
  - Storage of semen restricted to CGN-Wageningen Campus, and duplicate collection at Veterinary Faculty
  - Agreement on detailed CGN (ISO certified) protocols for collecting on farm, processing, storage, and for the use of semen
    - CGN protocols are integral part of the derogation



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### Derogation letter (1-5-2012)



- Key conditions of derogation (2):
  - Direct shipment of semen to end-user only (no trade)
  - Tracking and tracing of any individual doses of semen + monitoring of mating results
  - Veterinary checks <u>semen collection on farm</u>
    - Farms to be free of tuberculosis, leucosis and brucellosis (and FMD)
    - Bulls to be tested on tuberculosis, leucosis and brucellosis
    - Additional tests on non-notifiable diseases: IBR, BVD, Campylobacter, Trichomonas (same as semen collection centres)
    - No quarantine period (different from semen collection centres)
  - Veterinary checks <u>use of old semen</u>
    - Known veterinary status of semen collected in different periods (on AI station or on farm)
    - All semen can be used based on risk assessment of veterinary experts
    - FMD test on semen (1:100) needed for semen older than 1972; Optional tests for BVD and IBR (depending on user)
  - · Annual audit by NVWA



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### Further needs?



- Derogation for semen of other species
  - · Not so much "pressure" (yet) or no need
  - Pigs
    - Only 2 endangered breeds
      - Bunte Bentheimer (transboundary)
      - Dutch landrace (semen collection has good sanitary status)
    - All pig semen currently in genebank has been collected at AI Center
  - Other livestock species
    - No/less limitations for on farm collection and national use
- Epididymal semen, embryo's/oocytes/tissue
- Better connection of genebanks to breeding programs (complementarity)
  - Currently gene banks not mentioned in animal breeding legislation
  - Genebanks need official recognition (in regulations) at national level

