

CryoWEB – The Netherlands

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Aim of gene bank documentation

- To document and make available information about the collections managed under the responsibility of CGN-AnGR



Start of Dutch AnGR Documentation system

- Cryo Information System (Cryo-IS)
 - Database for Dutch gene bank collection developed in cooperation with Mariensee/Groeneveld 10 years ago



Cryo-IS NL

CGN - Dierlijke Genetische Bronnen

Cryo-IS

[Invoer](#)[Summary](#)[Search_animal](#)[Add_Partner](#)[Uitgifte](#)

CGN - Dierlijke Genetische Bronnen

[Add Animal](#)[Add Semen](#)[Add Stock](#)[Update Animal](#)[Update Semen](#)[Update Stock](#)

Add Animal

Species:			
Animal ln:		Sire ln:	
Animal ID:	7044	Animal name:	
Cryo ID:		Country:	Netherlands
Birthdate:		Deathdate:	
Sex:		Animal color:	
Breed 1:		Breed 2:	
Fraction 1:		Fraction 2:	
Owner:			
Comment:			

[Save + Add new Animal](#)[Save + Add Semen](#)[Save + Add Stock](#)

Last record saved

CGN - Dierlijke Genetische Bronnen

[Add Animal](#)[Add Semen](#)[Add Stock](#)[Update Animal](#)[Update Semen](#)[Update Stock](#)

Select Animal

Species:	cattle	Cryo ID:	1223
Animal ln:	NL 01-122560	Animal name:	JOKE SPAN
Birthdate:	1974-01-12	Reporting unit:	

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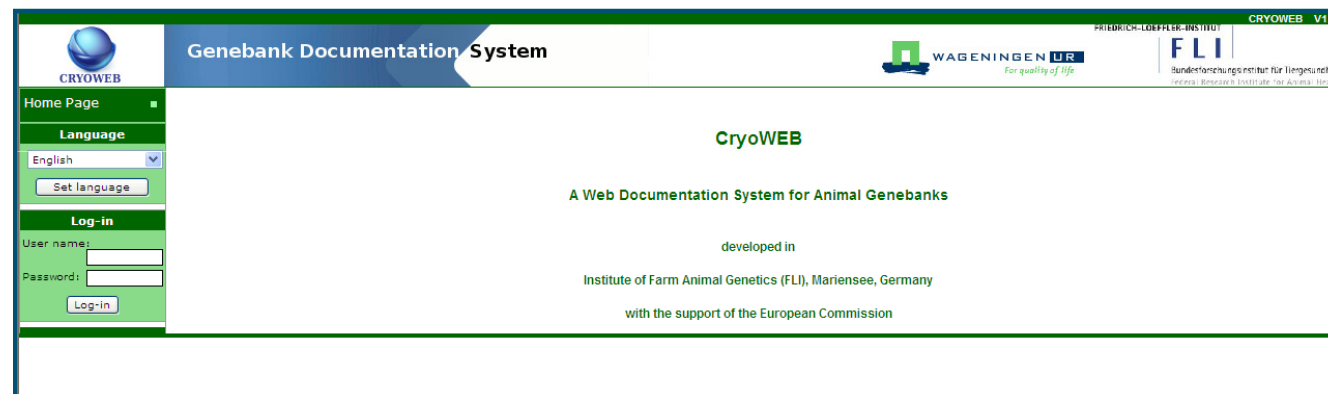
Select and Update Semen

Certificate id:	01-4820	Charge identification:	77137
Production location:	CR Delta	Who order the Semen:	SGL
Production date:	1982-04-28	Delivery date:	1993-10-28
Motility before conservation(%):	65	Number of straws:	150
Sperm per straw(mln):		Motility after freezing(%):	65
Straw/doses fraction:	1/1	Cryo type:	Straw 0.25
Vet. status:		Legal status:	
Method_collection_semen:			
Comment:			

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CryoWEB

- CryoWEB - advantages
 - Connected to EFABIS
 - Same system as other countries
 - Updating and helpdesk (?)



The screenshot shows the CryoWEB web interface. The top header bar is green and contains the CryoWEB logo on the left, the text "Genebank Documentation System" in the center, and logos for Wageningen UR and the Friedrich-Löffler-Institut (FLI) on the right. The FLI logo includes the text "Bundesforschungsanstalt für Tiergesundheit". Below the header, the main content area has a green sidebar on the left with links for "Home Page", "Language", and "Log-in". The "Language" section shows "English" selected in a dropdown menu with a "Set language" button below it. The "Log-in" section has input fields for "User name:" and "Password:" with a "Log-in" button below them. The main content area on the right displays the title "CryoWEB" in green, followed by the subtitle "A Web Documentation System for Animal Genebanks". Below this, it states "developed in" followed by "Institute of Farm Animal Genetics (FLI), Mariensee, Germany" and "with the support of the European Commission".

Additional fields implemented in CryoWEB-NL

SAMPLE

Sample ID* ?

Animal ID* ? ? Production date* ? Freezing date ?

Protocol name* ? ? Vessel type* ? ?

Comments

Legal status* ? ? Veterinary status* ? ? Collection method* ? ?

LOC	Storage ?	Tank* ?	Canister* ?	Compartment ?	Unit cell* ?	Units* ?	Status ?	Entry date* ?
1	...	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	core <input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	core <input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	core <input type="text"/>	<input type="text"/>

- Legal status = ownership of samples
- Veterinary status = classification – regulating future use
- Collection method = e.g. epididymal or ejaculated

Further development of CryoWEB (1)

- Add data fields for information about quality of genetic material stored
 - Motility (after freezing)
- Starting form with empty fields

Further development of CryoWEB (2)

■ Too much data in “comments” field

● e.g. Sample

- Charge ID
- Certificate no
- Colour straw
- Straws/dose_no
- Sperms/doses
- Motility before conservation(%)
- Motility after freezing(%)
- Dapi
- Nar, dar, mar and lac

The screenshot shows a web form titled "SAMPLE" with various input fields. A red circle highlights the "Comments" field, which contains the text: "charge ID: 916730; certificate no: 155931/5; kleur rietje: geel; straws/dose_no: 1/1; sperms/doses: 15; Motility after". Other fields include "Sample ID*", "Animal ID*", "Production date*", "Freezing date", "Protocol name*", "Vessel type", "Legal status*", "Veterinary status*", and "Collection method*". A "View" button is located at the bottom right of the form.

Further development of CryoWEB (3)

- How to deal with desired future changes to CryoWEB and with specific adaptations made at national level ?
- Responsibility for synchronisation
- Helpdesk ?

Coordination of further development of CryoWEB by?

- CryoWeb User Group
- WG Documentation of ERFP
- WG Ex Situ conservation of ERFP
- EFABIS management Committee (FAO, EAAP, ERFP)
- Individual country responsibility

Present in Dutch / CGN gene bank (2012)



Species	# of breeds	# of males per breed	# straws
Cattle	18	1 - 4716	214419
Sheep	7	13 - 69	22.548
Goat	2	5 - 24	3.965
Horse	6	1 - 26	1.983
Pig	27	1 - 47	16.298
Chicken	31	1 - 20	18.805
Duck	3	4 - 11	72
Dog	2	3 - 7	158

Web access to summary information

■ Export from CryoWEB to:

- EFABIS
- www.cgn.wur.nl

Population statistics per year are recorded for each breed

Population data									
Year	1986	1993	1994	1997	2005	2006	2007	2008	2009
Population size	>33	>83	>208	250 - 1000	736 - 2009	1261 - 2200	1209 - 2200		
Population figures based on	-	-	-	-	-	-	-	-	-
Reliability	unknown	unknown	unknown	reliable	reliable	reliable	reliable	reliable	reliable
Trend	increasing	increasing	unknown	stable	increasing	stable	increasing	stable	increasing
Trend no. of breeding herds	-	-	-	stable	stable	stable	stable	stable	stable
Trend females	increasing	increasing	increasing	stable	increasing	increasing	stable	stable	stable
Breeding males	3	5	15	25	25	63	63	63	63
Breeding females	30	80	195	250	736	1261	1209	1209	1209
Females registered in herdbooks	-	-	150	227	530	694	694	694	694
Females bred pure	70	70	97	70	80	90	90	90	90
Herd Size (avg)	-	-	-	-	7	9	9	9	9
AI used	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Males in AI	2	2	2	12	17	17	17	17	17
Males in natural service	-	-	-	25	18	46	46	46	46
Conservation programme	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Genetic material stored in cryobanks

Year	1986	1993	1994	1997	2005	2006	2007
Semen	-	-	0	17	0	1	1
Embryos	-	-	0	0	0	0	0
Oocytes	-	-	0	0	0	0	0
Somatic cells - males	-	-	0	0	0	0	0
Somatic cells - females	-	-	0	0	0	0	0

The total amount of genetic material stored in genebanks are recorded for each breed

Genenbank Data

GenenbankData Contact


GenenbankData

Zoeken in genenbank collectie landbouwhuiscdieren

Zoeken in:

Diersoort

Ras



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GeneBank Data

Genebank Data

GenebankData Contact

GenebankData


Search in gene bank collection livestock animals

Search in:

SpeciesCattle

BreedFries Roodbont

Search



Genebank Data

GenebankData Contact

GenenbankData

Search in gene bank collection livestock animals

Summary

Species	Breed	Number of donors	
Cattle	Fries Roodbont	45	Show

GeneBank Data

Data

All donors of breed **Fries Roodbont**.

ID	Name	Information breed	Details
NL **-790	KAREL 841	Show	Show
NL 802881238	ROGEER 60	Show	Show
NL **-781	JET HELMER	Show	Show
NL **-694	JET TEADE	Show	Show
NL **-670	KEI	Show	Show
NL **-914	MARCO	Show	Show
NL 845934412	GERBEN	Show	Show
NL 81-788	CITATION LEON	Show	Show
NL 309669263	ROMANTIEK FRYSLAN	Show	Show
NL 81-859	JET HENDRIK	Show	Show
NL 317718559	GRATAMA WIISNOAS	Show	Show
NL 813322630	DOEDE	Show	Show
NL **-759	KOOS	Show	Show
NL 839401094	KLAES	Show	Show
NL 145852010	ROOSJES BLIJDDORP 9	Show	Show
NL 209277702	SURFENNE ROMKE	Show	Show

Thank you for your attention

CGN-team Animal Genetic Resources
Genebank, Policy advice, Research, Breeding

