

Traceability of Imported Germplasm

Workshop on AI Delivery
and INAPH Implementation

23-24 Feb 2017
NDDB, Anand



Why do we import Bovine Germplasm?

- Exotic HF & Jersey bulls are required for crossbreeding programmes
- Shortage of pure HF & Jersey bulls in India which are of high pedigree – No regular source



Import of bulls

- To take advantage of genetic progress made in dairy developed countries
- To induct genetic variability

Procedures for import of germplasm

- NOC from State Governments
(as per Breeding policies)
- Obtaining import license from DGFT
- Floating of ICB
- Non-availability of Jersey bulls
- Change in Guidelines of import
- Quarantine management
- SOP for Traceability of imported germplasm

Import under NDP-I

- Plan - import 400 bulls or equivalent embryos of exotic breeds –
- Bulls - 76 HF (Germany) and 95 Jersey (Denmark)
- Embryos - 480 embryos of HF (320) and Jersey (160); next consignment of 800 embryos in 2017

Distribution of imported bulls under NDP-I

- 76 purebred HF bulls from Germany during February, 2015 to 14 semen stations in 13 States
- 95 purebred Jersey bulls from Denmark during January, 2017 to 25 semen stations in 14 States

Why Traceability?

- Feedback - to assess what we are doing is correct or not
- Whether any midcourse corrections are required

Traceability - Objective

- To ensure use of exotic germplasm as per State Breeding policies
- To assess the performance of imported germplasm in different agro climatic zones
- To compare the performance of imported germplasm from different countries
- To track entry of new genetic and infectious diseases



Traceability – is it possible?

- Adequate inputs and systems ?
- Voluminous data?
- Difficulty under given conditions ?
- Agricultural and Processed Food Products Export Development Authority (APEDA) – MIS
- Attempt to capture the data of the first generation
- Encourage use of mobile telephony to set up system for traceability – Android Apps?
- Find workable solutions

Present Situation

- GoI restricts importation of live animals
- SOP- now mandatory to keep proper records of use of the imported germplasm to:
 - i. assess the productivity of imported germplasm in the Indian environment
 - ii. track entry of new genetic and infectious diseases
 - iii. facilitate future policy decision making

Therefore, NDDB has signed an MoU with the semen stations which received imported bulls under NDP-I agreeing to ensure traceability of imported germplasm, as per GoI guidelines.

Traceability of bulls

Semen Station (Recipient Agency) to ensure traceability of the imported bull(s) and semen doses produced by them and record performance of germplasm in the field as mentioned in the SOP for Traceability of imported germplasm



Traceability of bulls

A quarterly report to be sent to DADF, GoI with a copy to PMU, NDP I, NDDDB, Anand, as per the prescribed formats



Monitoring Health of Imported Bulls

- SS (RA) should maintain proper records of all the health interventions carried out on the allotted bull(s)



To furnish the above information, organizations need to

- Use a system (INAPH) which tracks all semen production and distribution transactions
- Tie up with AI service provider for:
 - maintaining information on all AI, Pregnancies Calvings from the use of semen supplied
 - Tracking all male and female calves born from this semen
 - Measure production of females when in production

AI service provider should

- Ear tag all animals receiving imported semen
- Follow up all AI for pregnancies
- Follow all pregnancies for calving
- Ear tag all calves born
- Keep track of all female calves till their first calving
- Measure production of these females in first calving
- No. of male calves used for semen production out of male calves should be recorded



Usefulness of INAPH in Traceability

- Comprehensive software able to keep record of all events (Breeding, health, production) on same ear tag number
- Tag number is attached to farmer and its location and also tracks movement of animals



**Efforts for traceability of
imported bulls allotted under
NDP I**

Major terms for supply of imported Bulls under NDP-I

- Signing MoU with NDDB and agreement with RAs for traceability
- Providing monthly monitoring report & quarterly animal health report
- Providing traceability report of FSDs on quarterly basis to DADF
- In case of Death - Detailed report
- Insurance of imported bulls in future by RAs

Monitoring of imported bulls: Efforts made under NDP I

Form of Monitoring	Responsibility of
Weekly monitoring	Monitoring Officer
Monthly report on growth & semen production to NDDB	Semen Station – Regular follow up by dedicated Monitoring Officer
Quarterly Animal Health activity to NDDB	
Quarterly traceability report to DADF, GoI	
Monitoring visit once in two months	Monitoring Officer

Monitoring of bull production programme through imported embryos

Form of Monitoring	Responsibility of
Monthly progress report on transfer of imported embryos	Participating Agencies (PAs)
Quarterly monitoring visit	Monitoring Officer
Biannual review meeting with PAs	PAs and NDDB

Meetings on Revisiting MS for FS production

NDDB organized meetings/ seminar/ workshop with Semen Station personnel, Directors/ CEOs/ MDs of State AH Dept. / Livestock Development Boards/ Agencies :

Meetings/ Seminar	Major decisions taken
Workshop on Revisiting MS for Bovine Frozen Semen Production, March 12-13, 2015	To provide details traceability of imported germplasm, exclusive score should be framed in CMU evaluation of Semen stations – Accordingly it has been included in the revised CMU score card & will be prerequisite for grading from next CMU evaluation after 2015

Meetings on traceability with I/C of semen stations

Meetings/ Seminar	Major decisions taken
<p>Meeting with In Charges/ Officers of the SS which received imported bulls under NDP I – June 19, 2015</p>	<ul style="list-style-type: none"> • Traceability report on the imported HF bulls should be sent to DADF, MoA, GoI • Timely submission of monthly & quarterly reports (1st week month & quarter) • Disease screening, vaccination and prophylactic treatment of the imported HF bulls • Supply of first 7000 doses produced from each bull to KMF & further supply to different agencies & its follow up on traceability

Meetings on traceability with representatives of states

Meetings/ Seminar	Major decisions taken
Seminar on “Traceability of Imported Bovine Germplasm” – 26 th August, 2015 [With Directors/ CEOs/ MDs of State AH Dept. / Livestock Development Boards/ Agencies]	<ul style="list-style-type: none">• Formation of ‘Monitoring Cell/Monitoring Committee’ at DADF to monitor traceability of imported germplasm

Meetings on traceability with representatives of states (Cont.)

Meetings/ Seminar	Major decisions taken
Seminar on “Traceability of Imported Bovine Germplasm”	<ul style="list-style-type: none">• Necessary support and training for using INAPH for traceability of imported germplasm will be provided by NDDB• Semen stations should start dialogue with transport agencies on the new “Rules for transport of livestock by motor vehicles” which require special motor vehicles for livestock transportation

Thank you

