PRESENTATION OF LANAVET

1. STATUS:

The National Veterinary Laboratory (LANAVET) is a government public company that was created, in 1983 and inaugurated in 1992 by President of the Republic.

LANAVET is placed under the technical supervision of the ministry in charge of Livestock and Financial supervision of the ministry in charge of finance.

2. STAFF STRENGTH:

LANAVET has staff strength of 78 persons comprising 13 senior staff, 19 junior staff and 46 qualified labourers.

3. MISSIONS:

The missions of LANAVET are:

- The production and commercialisation of vaccines and medical products;
- Analysis of biological specimen for diagnostic purposes;
- Animal disease studies;
- The surveillance of epizootics;
- The training of senior staff and technicians;
- Scientific collaboration with national and international organisations.

4. LOCATION:

LANAVET is situated at distance of 14 kilometers from Garoua (North region-Cameroon, Central Africa), on the road to Ngaoundéré. It covers a surface area of 1.200 hectares. The area exploited comprises:

- An administrative block;
- A veterinary vaccines production laboratory;
- A human vaccines production laboratory;
- A quality control laboratory;
- A laboratory for diagnostic, studies and surveillance of animal diseases;
- A general service building;
- A building for animal husbandry;
• Workshops for maintenance;
• Lodgings for senior and junior staff.

5. **Vaccines production** :

LANAVET has a long experience in the production of vaccines. Her catalogues of vaccines are destined for the protection bovines, ovines, caprines and poultry.

The ruminant vaccines are against the following diseases:

- Anthrax;
- Blackquarter;
- Bovine pasteurellosis;
- Contagious bovine pleuropneumonia;
- Lumby skin disease;
- Peste des Petits Ruminants.
- Contagious caprine pleuropneumonia (Feasibility studies)

The poultry vaccines are against the following diseases:

- Newcastle disease;
- Infectious bronchitis;
- Fowl typhoid;
- Fowl cholera;
- Gumboro disease;
- Fowl pox.

LANAVET produces a trivalent inactivated vaccine against Newcastle disease, Fowl typhoid, and fowl cholera. This vaccine is very useful for traditional poultry farmers because it can be stored at room temperature for several months.

LANAVET has equally developed with the support of FAO, a thermostable vaccine against Newcastle and another against Peste des petits ruminants.

These vaccines are mainly produced in fermenters. However, LANAVET has just acquired a bioreactor which will permit the continuous production of vaccinal antigens. This unit is being installed and its usage will go a long way to increase the production capacities of LANAVET.

There is an ongoing project for the production of vaccines against Foot and Mouth disease. Samples have been collected from the field and will be analysed to determine the viral strains circulating. Vaccines adapted to Cameroon will be produced in collaboration with Botswana Veterinary Institute.

6. **QUALITY CONTROL**:

All inputs do undergo quality control tests before being used in production. Outputs (finished product) also undergo quality control test before marketed.
The vaccines produced undergo an external quality control test carried out by the AU/PANVAC laboratory in Debre Zeit in Ethiopia which is the African Union reference laboratory for the quality control of veterinary vaccines.

7. VETERINARY DIAGNOSTIC:

LANAVET routinely carries out diagnosis of animal diseases caused by bacteria, parasites and viruses. The techniques used includes: microscopy, serology, ELISA, and PCR.

LANAVET does carry out biochemical analysis of samples such as blood or organs, water specimen from boreholes wells, animals’ feeds and other animal products.

8. SCIENTIFIC COLLABORATION:

LANAVET collaborates with research institutions in Cameroon (IRAD, universities and other higher institutions) and international organisations involved in fight against epizootics (IAEA, CIRAD, FAO, Institut Göttingen, PANVAC, University of Udine-Italy). LANAVET is a member of ‘RESOLAB’ (A network of veterinary diagnostic laboratories for west and central Africa)

Several research projects are ongoing in LANAVET on animal health within the framework of international scientific collaboration. The diseases concerned are:

- Contagious bovine pleuropneumonia, with CIRAD-France;
- Peste des petits ruminants, with IAEA-Vienna;
- Salmonellosis, with W.H.O
- Foot and Mouth disease, with OHIO State University-USA, and Botswana veterinary institute and Plum Island laboratory.

9. ACTIVITIES ON FOOT AND MOUTH DISEASE

LANAVET within the PACE-Cameroon program carried out preliminary epidemiological investigations on FMD in the Adamaua region of Cameroon in period 2005-2006. The result of the study showed the presence of serotypes O, A, SAT1, SAT2 of the FMD virus. These results were confirmed by IAH-Pirbright. However, further studies are still ongoing as there is only a paucity epidemiological data available for the entire country.

LANAVET has the ambition of producing vaccines against Foot and Mouth disease. It is against this backdrop that LANAVET started a surveillance program for FMD in order to determine the serotypes of the virus circulating in Cameroon.

Samples have been collected from FMD suspected outbreaks in the three Northern regions of Cameroon. The same operation will be carried out the North West and West regions of the country.

These samples will be divided into three (03) batches. One batch will be analysed locally, one batch will be shipped to Pirbright and another batch to Plum Island for analysis. Cross comparison of the results obtained will help in selecting the serotypes of the virus circulating in Cameroon.

LANAVET has established an agreement with Botswana Veterinary Institute on technology transfer in the area of the production of vaccines against foot and mouth disease.

LANAVET also has collaboration work with the Ohio state University and Plum Island laboratory in United States on computer modelling of Foot and Mouth disease outbreaks in the Far North regions.
of Cameroon. In this project samples suspected of Foot and Mouth disease are also collected and stored in LANAVET. The samples are divided into two batches. One batch is sent to Plum Island for analysis and the other batch tested locally.

10. PUBLIC SERVICE MISSIONS:
LANAVET plays an important role in the surveillance and control of diseases in Cameroon and Central African sub region.

LANAVET carries out public service assignments for the ministry in charge of Livestock: diagnosis of zoonosis (bird flu and rabies for the three Northern regions of Cameroon) and surveillance of animal diseases. Also the first case of avian influenza in Cameroon was processed in LANAVET.

11. TRAINING:
LANAVET regularly receives trainees. These trainees do come from Africa, Asia and Europe. Most often they are students in their final year of study or professionals who wish to perfect the skills in diagnostic techniques or vaccines production. Students from Cameroonian universities and other higher institutions also benefit from these training.

LANAVET equally trains her staff with the support of international scientific cooperation.

12. MARKETING AND SALE OF VACCINES:
Vaccines produced by LANAVET are sold in Cameroon and abroad.

LANAVET exports about 50% of her vaccines to other African countries such as Benin, Burkina Faso, Centrafrican republic, Côte d'Ivoire, Ghana, Nigeria, Chad and Togo.

13. QUALITY ASSURANCE SYSTEM:
LANAVET is also involved in quality assurance system aiming at ameliorating her services, products, the security and the working conditions of her staff.

14. FUTURE PERSPECTIVES:
In supplying good quality vaccines, LANAVET contributed in the eradication of rinderpest in Cameroon and Africa.

LANAVET has the ambition of diversifying her brand of vaccines and conditioning and packaging of veterinary chemotherapeutic products.