An effective vaccine induces the specific protection desired, but success depends on several factors, starting with proper handling and preparation techniques. In this part all aspects vaccines used in the rearing period for layers and breeders are described by several Standard Operating Procedures (SOP's).

The term "vaccination" covers a number of techniques performed with the aim of protecting birds by activating specific immune defense systems against viral and bacterial infections. Proper vaccination techniques ensure good immunization of the birds. In this part, all vaccination techniques commonly used in the rearing period for layers and breeders using automatic or manual equipment are described through several standard operating procedures (SOP's).

The injection of a watery or oily inactivated vaccine using manual or automatic equipment is a practical activity in the field. Extremely efficient vaccination machines have been developed to vaccinate day-old hatchery chicks or farm pullets; however, administration or injection failure can lead to more immediate consequences. In this part all aspects regarding the use of equipment on layer and breeders farms are described. Included are Standard Operating Procedures (SOP's) for setup, operation & cleaning of the IMVAC®, WINGVAC®, CAGE SPRAYER® and other equipment.

Continuous monitoring of vaccination quality is the only way to discover failures and improve vaccination technique. The best vaccination program can only be achieved with proper administration and monitoring to ensure the flock is well protected. This final part focuses on monitoring and auditing of the vaccination process and concludes in recommendations for improvements on the vaccination process.

Ceva is a fast growing animal health company recognized for its innovative products and services, to control the main poultry diseases. Ceva has developed a broad range of vector vaccines and a comprehensive range of conventional vaccines to control the main poultry diseases and to safeguard both birds health and the egg production. Ceva developed the EGGS Program in response to the stress caused by the increased number of vaccinations and handlings during the rearing period. The goal is to reduce the number of vaccinations and therefore stress, while improving the quality of vaccination.

Ceva Eggs Program
Simpler and safer vaccination

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Unique equipment for correct application of vaccines in the field

- **IMVAC**: unique automatic intra-muscular (IM) breast injector for precise and safe injection of vaccines via the IM breast route.
- **WINGVAC**: unique semi-automatic wing web injector. Precise and correct dose application of vaccines applied via the wing web route.
- **CAGE SPRAYER**: semi-automatic equipment for spray vaccination of pullets in cages for correct dose and particle size administration.

Comprehensive services & Standard Operating Procedures (SOPs)

- Preparation and handling
- Training on equipment use, maintenance and cleaning
- Correct vaccine application to reach optimal immunization
- Monitoring and diagnoses: vaccination audits and improvement guidelines

The unique equipment and comprehensive services are part of the newly developed EGGs program, which has as goal correct administration of poultry vaccines to obtain optimal immunization and protection and consists of the four parts listed below.

**Ceva EGGs Program**
offers a complete vaccination solution including:

- Unique equipment to facilitate more precise vaccination, easier vaccination and improvement of safety for the bird and the operator.
- Comprehensive services on vaccine handling, equipment set up, maintenance and cleaning, correct vaccine administration, and vaccination quality audits.

Contact your local Ceva representative for more information.