

Cevac  
**IBird<sup>®</sup>**  
+ Cevac<sup>®</sup> Vitabron L

The **FIRST** and  
**ONLY VACCINE**  
in **INDIA** for  
**IB VARIANT**  
**STRAINS**



**HEALTHY**  
**CHICKENS**

**INFECTIOUS BRONCHITIS UNDER  
CONTROL FROM THE HATCHERY**





# Infectious Bronchitis an underestimated pathogen

Infectious bronchitis when most of the time not causing mortality in infected birds, is a severely underestimated disease, in spite of its significant impact on the cost of production.

A large scale study was performed in an integration, comparing zootechnical performance and infectious bronchitis serology as measured by ELISA titers at slaughter. 563 houses from 139 farms were included in the analysis. Flocks were vaccinated in the hatchery at day old with a single dose of a Massachusetts vaccine.

	Mean IB titer <1500	Mean IB titer > 2000	P value
Feed conversion	1.69	1.7	0.989
Average daily weight growth and unit gram	61.3	59.7	< 0.001
% Total mortality	3.29	4.02	< 0.001
Condemnation rate	0.77	1.36	0.0948
European Performance Index	360	343.8	< 0.001

According to IB titers, 2 groups of flocks were observed. Although production performances for IB infected flocks (IB titers > 2000) were acceptable, they were statistically worst compared to non infected ones (titers < 1500).

**IB infection even on already good performing flocks has a clear impact on zootechnical & economical production parameters.**



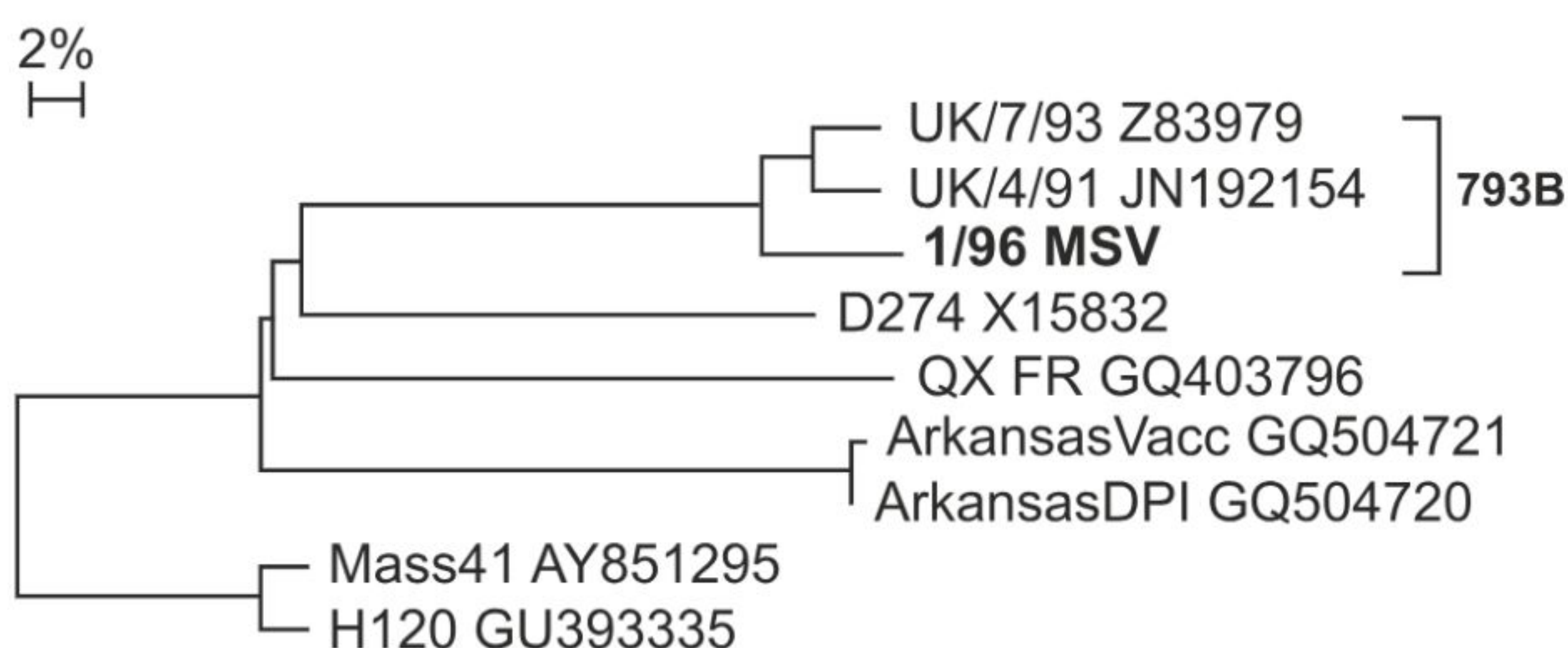


# Cevac IBird<sup>®</sup>

+ Cevac<sup>®</sup> Vitabron L



Cevac IBird<sup>®</sup> is a live attenuated vaccine belonging to 793 B serotype of Infectious Bronchitis Virus. This unique strain can be differentiated from any other 793 B virus through PCR analysis.



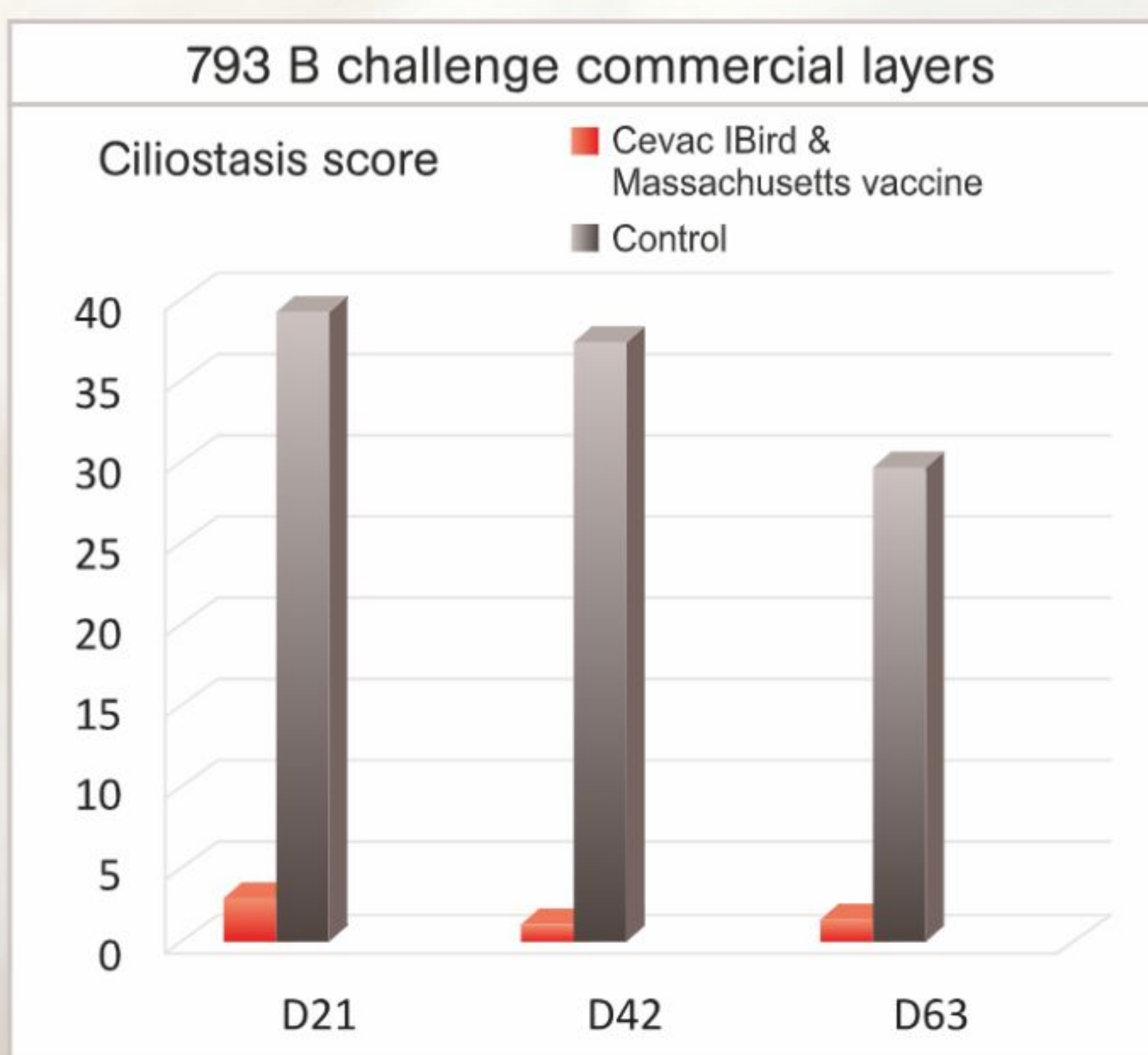
- ♥ Safe from day on broiler, layers & breeders.
- ♥ Long duration of immunity from day 1 application up to 6 weeks in commercial broilers and 9 weeks in commercial layers & breeders.
- ♥ Strong efficacy with demonstrated capabilities to significantly reduce shedding of challenge virus.



## ♥ 9 weeks duration of immunity

Cevac IBird® and Massachusetts vaccine combination has been tested when applied together by spray at day 1 in commercial layers. Vaccinated birds have been challenged at 3, 6 and 9 weeks of age after day 1 spray vaccination.

- EU pharmacopeia ciliostasis scoring system has been used to evaluate protection after challenge.
- Challenge virus reduction level has also been evaluated during the test.



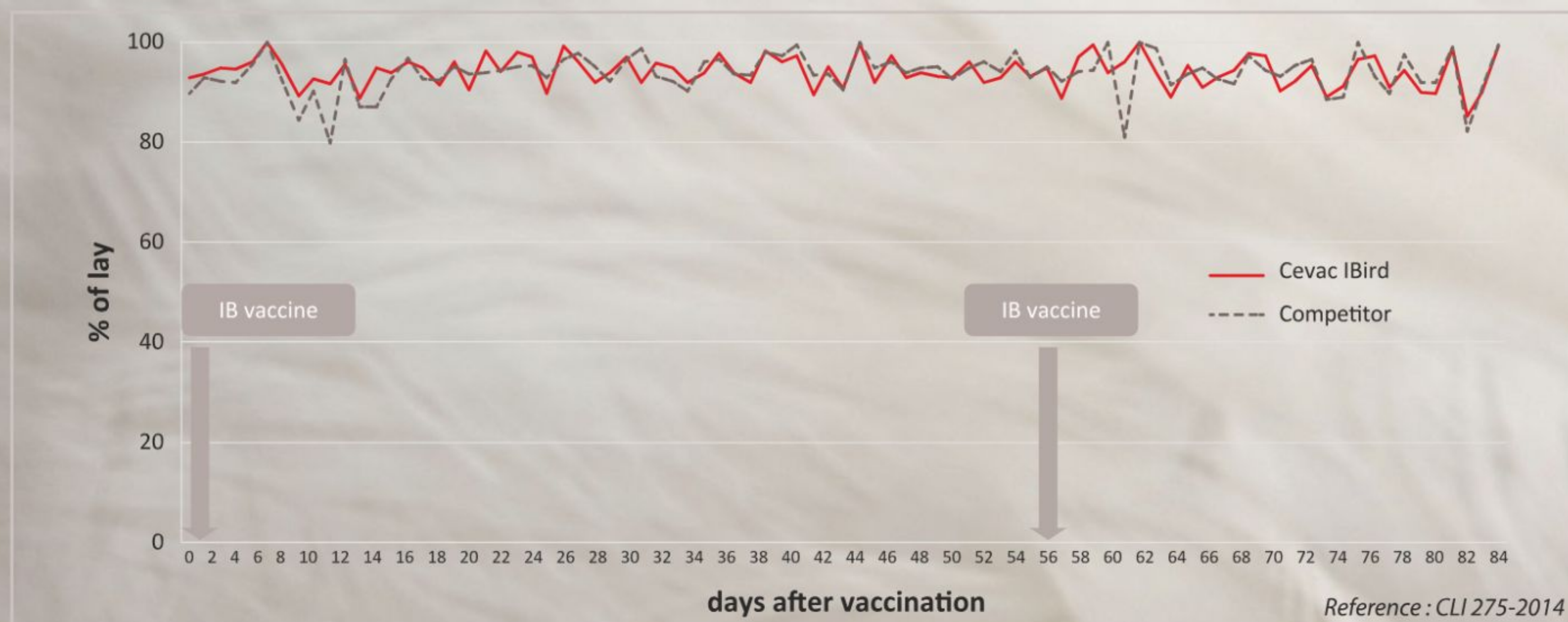
### Reduction of challenge virus replication

Challenge virus	3 weeks	6 weeks	9 weeks
793 B	5.1*	8.1*	3*

\*Reduction of IB challenge virus quantification in the trachea by real-time PCR

Cevac IBird® can induce long duration of immunity from day 1 application. Vaccinated birds have shown a strong reduction of 793 B challenge virus.

## ♥ Safe repeat use in lay



Cevac IBird® was applied by spray at 30 & 38 weeks of age on commercial layers which were already immunized against 793 B virus during rearing.

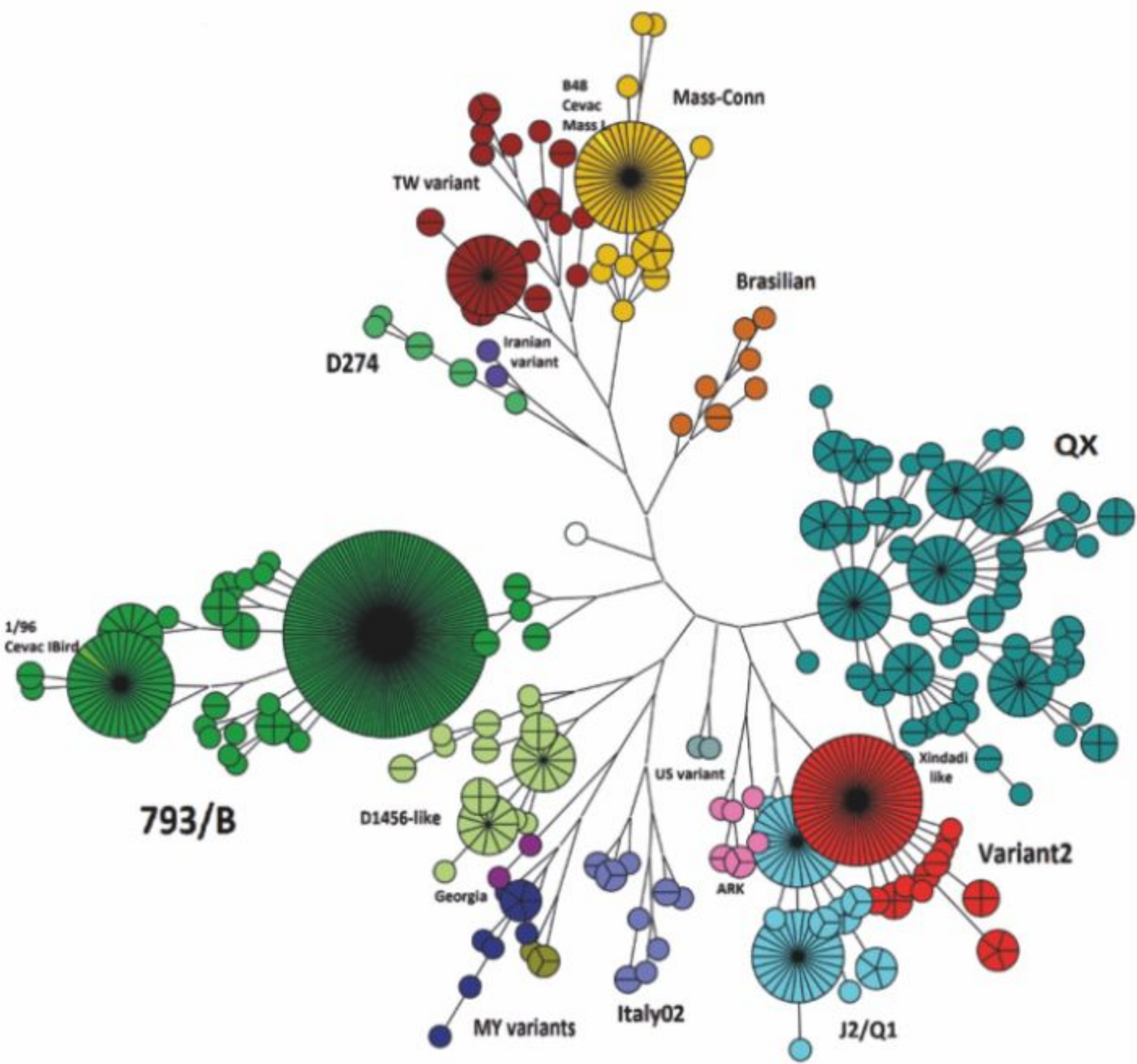
The control group was on the existing vaccination program, using a competitor vaccine applied by drinking water.

- ♥ Cevac IBird® application on commercial layers in production resulted controlling production loss (no egg drop) and maintained normal egg shell (no egg shell abnormalities)
- ♥ No lesions on the oviduct were detected on vaccinated hens for both groups.
- ♥ Cevac IBird® is safe to be applied, repeatedly, by spray during lay.



In order to address Infectious bronchitis virus (IBV) diversity, it is common practice across the world to combined 2 different IB vaccine serotypes at day 1 to achieve a broad protection against field viruses. Ceva R & D has demonstrated that Massachusetts vaccine strain & Cevac IBird® were fully compatible & safe when mixed together from day of age by spray route.

Challenge strain	Vaccination program
	IBird® + Mass @ day 1
793 B	YES
Mass	YES
QX	YES
Q1 / J2	YES
Italian 02	YES
Egyptian variant	YES
Variant 2	YES
Malaysian variant	YES
Tunisian variant	YES
Taiwanese variant	YES



Cevac IBird® induces strong protection against the 793 B virus strain. Cevac IBird® in combination with a Massachusetts vaccine strain is able to offer a wider protection for QX, Q1, Variant 2 and other variant infectious bronchitis virus strains isolated from different parts of the world.

## Application is critical

In most of the cases the spray application in the hatchery is not properly done and monitored: equipment set up, the consistency of spray and proper hygienic procedures are not properly defined and performed.



Here’s an example of audit of hatcheries regarding their spray equipment

Topic	Hatchery 1	Hatchery 2	Hatchery 3	Hatchery 4
Equipment set up	100%	83%	72%	73%
Equipment performance	61%	50%	59%	68%
Process and environment	81%	72%	57%	81%

**Desvac In Line Spray & Desvac Hatch Spray:** These specific spray equipments developed by Ceva for consistent and uniform spray. Our hatchery service C.H.I.C.K. program with our 150 technicians in the field guarantee this service to your hatcheries.



## INFECTIOUS BRONCHITIS UNDER CONTROL FROM THE HATCHERY

Compatible with Massachusetts vaccine at day 1



Broad Protection: Mass, 793 B, QX, Q1, J2, Var2, Malaysian variant, Tunisian variant, IT02, and Taiwanese gpe 1

9 weeks duration of immunity: no need for IBV revaccination in the field



Simplification of the vaccination program

Challenge virus shedding reduction



Reduction of the circulation of the field virus

Safe repeat use in lay



Better control of IB problems in layers & breeders.

Desvac equipment and C.H.I.C.K. Program



Better control of vaccine application

### Summary Product Characteristic

#### Cevac IBird®

**Composition** Cevac IBird® contains a Live, attenuated infectious bronchitis (IB) virus, strain 1/96. **Indications** For the active immunization of broiler and future layer chickens in order to reduce the detrimental effect on the ciliary activity and presence of virus in trachea resulting from the infection, which may be manifested in respiratory clinical signs. Protection was demonstrated by challenge with the 793/B strain, which is a representative strain of the 793/B group. Onset of immunity is 3 weeks after one administration of the vaccine. Duration of immunity is 6 weeks following vaccination, except for future layers in which duration is 9 weeks after the first vaccination by spray route. **Administration** One dose of the vaccine should be administered by nebulisation with coarse spray from 1 day of age in chicken. Older chickens can also be vaccinated by coarse spray. One dose of vaccine can be administered by drinking water from 10 days of age in pullets. In order to maintain immunity, chickens may be revaccinated every 3 weeks. The repeated use of Cevac IBird has been shown to be safe in layers during lay. **Special precautions for use** Vaccinate healthy susceptible birds only. Safety and efficacy data are available which demonstrate that this vaccine can be mixed and administered with Cevac Mass L by spray application in chickens from day old onwards. When administered with Cevac Mass L the duration of immunity in broiler chicken was shown to be 9 weeks. No information is available on the safety and efficacy of Cevac IBird when mixed and administered with Cevac Mass L to hens during laying period. The mixed products protect against strains belonging to 793/B and Massachusetts groups of IBV. The safety parameters of the mixed vaccines are not different from those described for the vaccines administered separately. Read the product information of Cevac Mass L before use. Care should be taken to avoid spreading of the vaccine strains to other bird species, in particular when the vaccines are mixed. Simultaneous use of both vaccines may increase the risk of recombination of viruses and potential emergence of new variants. However, the chance of a hazard occurring has been estimated very low. No information is available on the safety and efficacy of this vaccine when used with any other veterinary medicinal product except Cevac Mass L. A decision to use this vaccine before or after any other veterinary medicinal product therefore needs to be made on a case by case basis



### Presentation

1000 and 2500 dose vials

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Together, beyond animal health