AUPHYL® *Plus*

Together we stop the Chain Reaction

To better get rid of Aujeszky's Disease

AUPHYL® *Plus*

Passed the highest standard of efficacy

Protocol following the European pharmacopoeia:

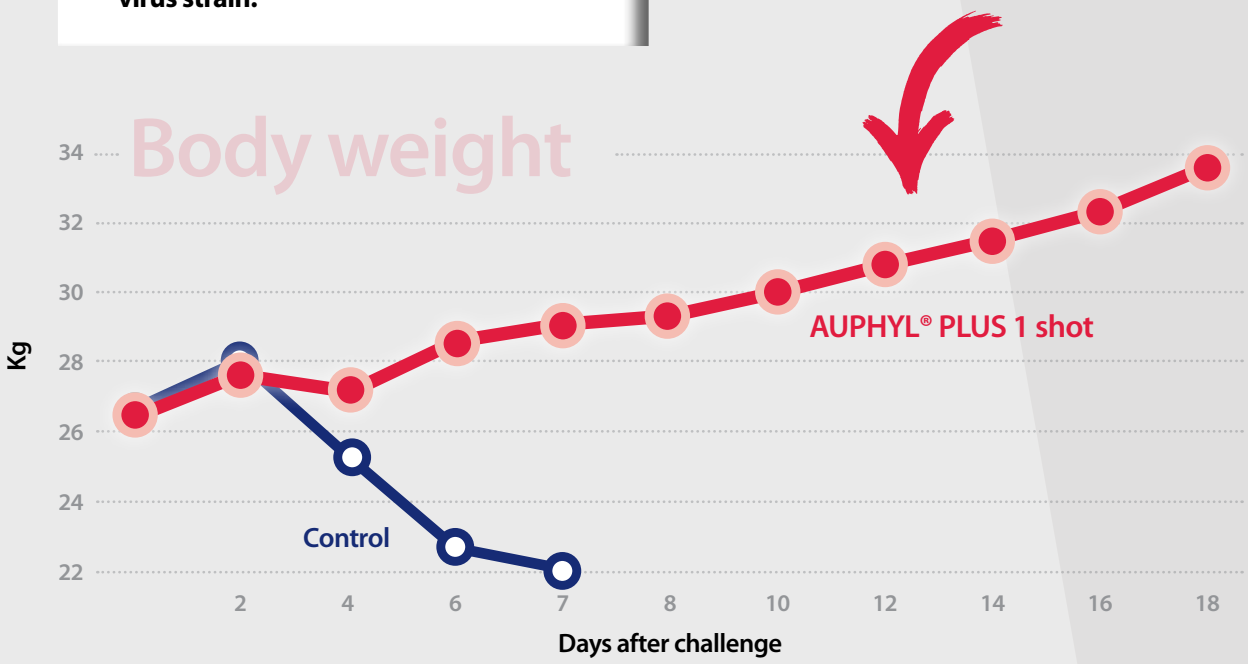
- **2 groups of 10 week-old piglets:**
  - Vaccinated (single shot of **AUPHYL® PLUS**)
  - Control = unvaccinated
- **Challenge 3 weeks later by intra-nasal inoculation of a virulent NIA Aujeszky's virus strain.**

With AUPHYL® *Plus*

All vaccinated animals survived.

All unvaccinated animals showed signs of Aujeszky's disease (including 6 deaths).

The strong difference of Average Daily Gain demonstrates the severity of the challenge.



Reduces the spread of the disease

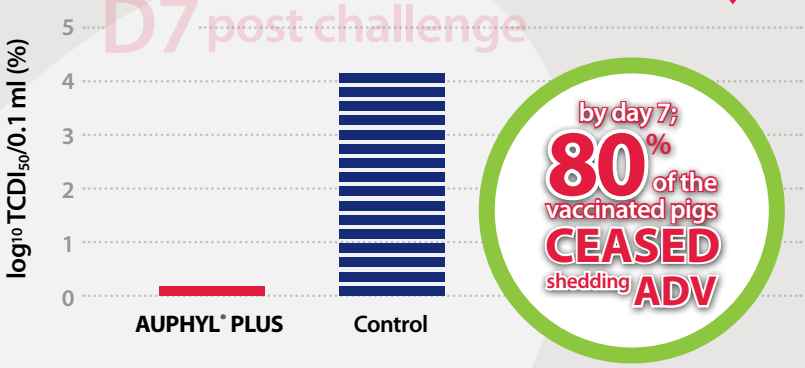
Besides providing good clinical protection, large-scale vaccination based control programs against ADV rely on the use of vaccines that efficiently limit the shedding of the virulent virus by infected pigs.

With AUPHYL® *Plus*

The ADV excretion after experimental challenge is reduced.

Pigs were vaccinated twice with AUPHYL® PLUS at 6 and 10 weeks and then challenged with virulent ADV intranasally by using NIA-3 strain.

Mean challenge Aujeszky's disease virus (ADV) shedding upon vaccination[1]

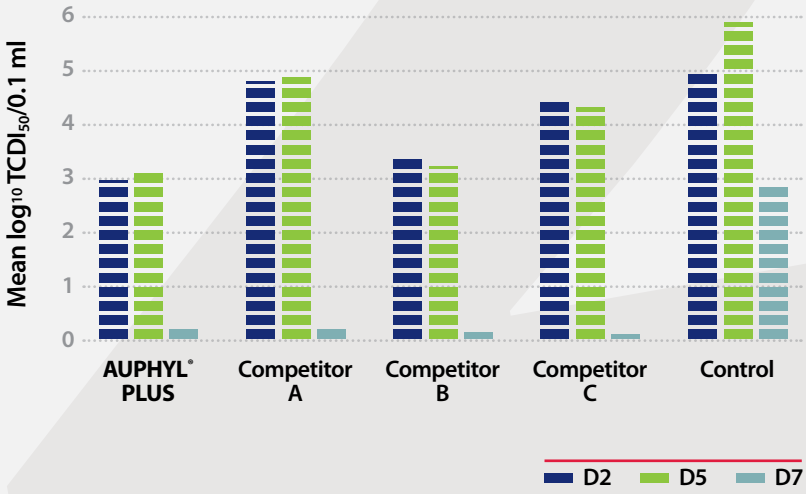


- **6 weeks piglets were vaccinated and boosted 3 weeks later with one dose of four commercial vaccines.**
- **3 weeks after booster vaccination pigs were challenged with the NIA-3 virulent ADV strain via intra-nasal inoculation.**

With AUPHYL® *Plus*

Fastest reduction of the virus shedding is obtained.

Virus shedding after ADV challenge on 12-weeks-old piglets[2]



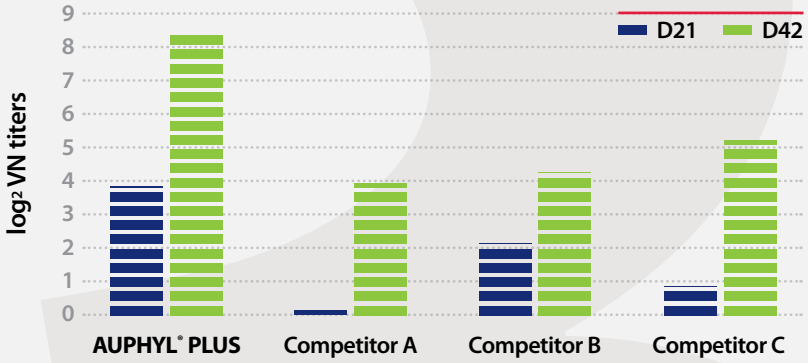
Provides a long and uniform immunity

The immune-response to **AUPHYL® PLUS** and competitor vaccines was measured by virus neutralization assay using standard microneutralization method on MDBK cell line at 21 and 42 days post vaccination.[2]

With AUPHYL® *Plus*

Significantly higher mean neutralizing antibody titres are induced than those of competitors ($p < 0.05$).

Virus neutralizing antibody titres[2]



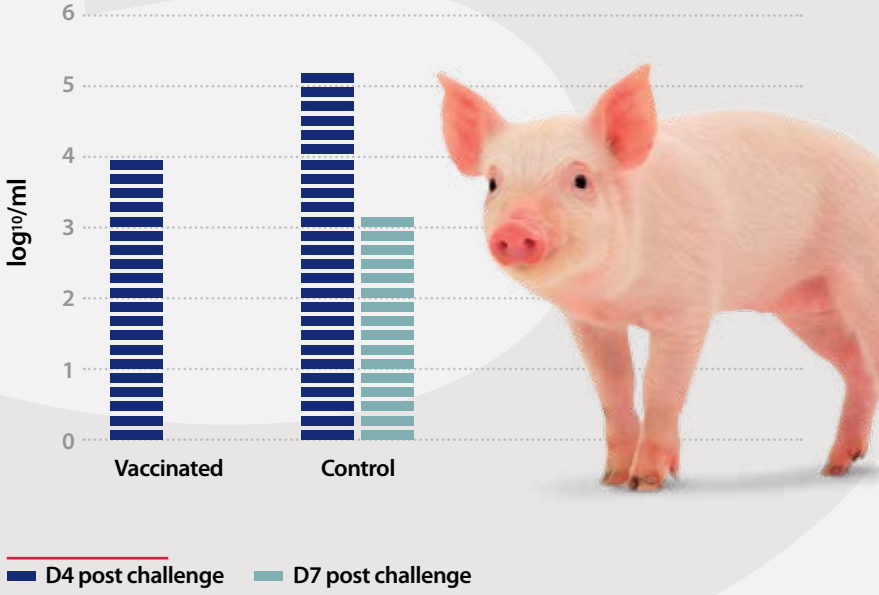
- **Vaccination of pigs was carried out at 8 and 12 weeks.**
- **The challenge virus strain AyV-NIA-3 was applied intra nasally at 6 months of age.**[3]

With AUPHYL® *Plus*

Virus shedding from the vaccinated animals is lower than from the controls on day 4 after the challenge and there is no shedding from vaccinates on day 7 post challenge, while there is in control animals.

After vaccination the protection lasts until 6 months of age.

Shedding reduction in 6-months-old fatteners[3]



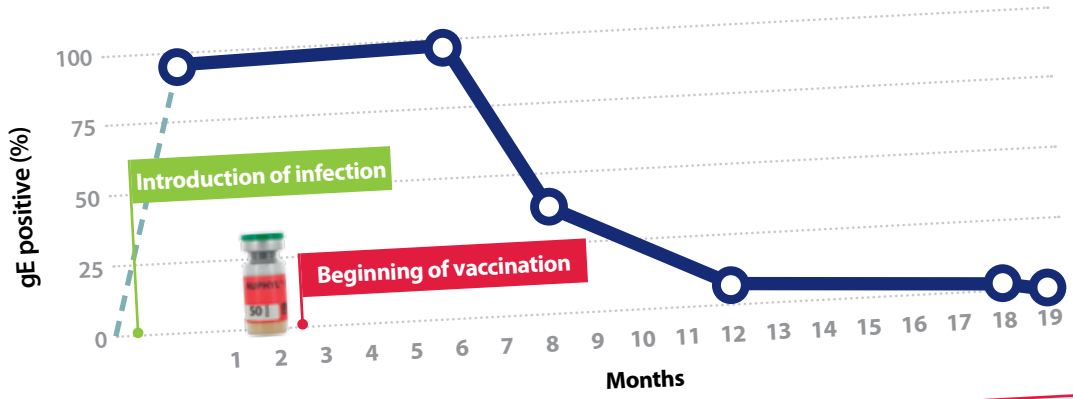
A reliable tool to **eradicate** Aujeszky's disease

AUPHYL® *Plus*

Analysis test result		RESULTS
ELISA gB	ELISA gE (or g1)	
+	+	Infected animal
+	-	Vaccinated animal

Auphyl® Plus is a deleted vaccine thanks to which the gE test can be used to assess the infection status at the farm.

Evolution of ADV status in an infected herd* following intensive vaccination with AUPHYL® PLUS



* Blood samples were taken from the fattening pigs at 150-180 days of age.

Auphyl® Plus is the oil in water adjuvated Aujeszky vaccine selected by authorities for eradication of pseudorabies in some countries.

Vaccination program

Piglets x2

AGE — 8/10 weeks — 4 weeks later

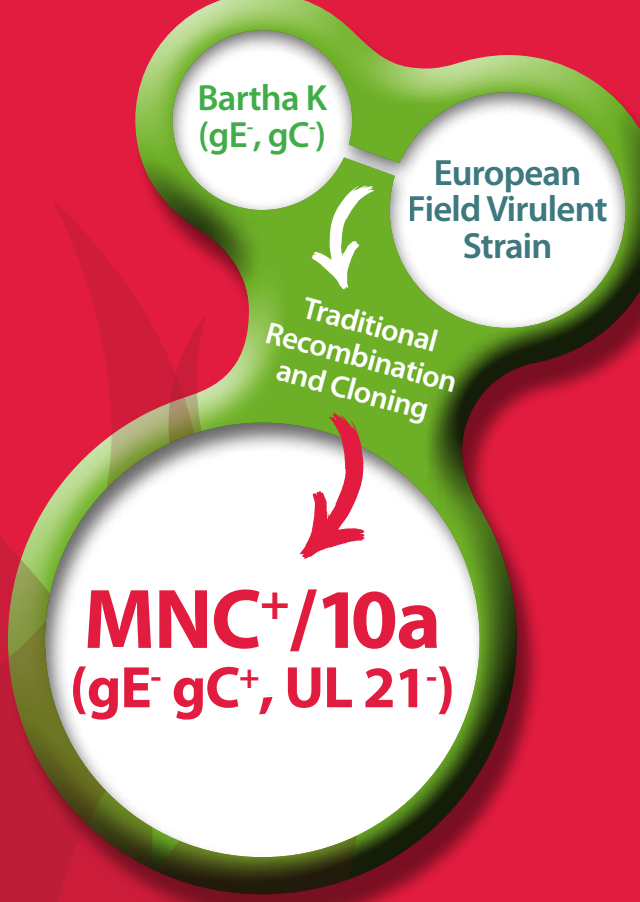
Boost in the endemic area

Future breeders x3

AGE — 8/10 weeks — 12/14 weeks — 6 months

Breeders x2 to 3 times a year

AUPHYL® PLUS
contains a very specific strain of Aujeszky's disease virus



- The MNC+/10a strain is a natural derivate of the Bartha's (K/61) virus containing gE (previously gI) deletion, UL21 mutation and a complete gC gene.
- It is thus irreversibly avirulent but highly stimulating for the immune system[1].
- The immunogenicity is enhanced by using an oil in water adjuvant.

MNC+/10a

AUPHYL® *Plus*

Is a **modified live vaccine** against Aujeszky's Disease

Contains a **specific selected strain:** MNC+/10a.

Offers **strong and homogenous stimulation** of the immune system to guarantee the prevention of the clinical symptoms.

Is a reliable **tool for eradication** thanks to its capacity to reduce drastically the virus shedding and the possibility to distinguish vaccinated pigs from infected ones.

Bibliographic references

1. Lommiczi B. *et al.*, 1999, Genetically improved Aujeszky's disease strain MNC+/10a derived from strain K/61 and testing for safety and potency in pigs, Proc. PRRS and Aujeszky's Disease, Ploufragan, France.

2. Kiss I. *et al.*, 2013, Comparative efficacy test of Live Aujeszky's Diseases Vaccines in pigs, Proc. APVS Ho Chi Minh, Vietnam.

3. Herczeg J. et al., 2011, Reduction of the challenge virus shedding using Auphyl® Plus vaccine in actively immunized young pigs and in 6-month-old fatteners, Proc. APVS Pattaya, Thailand.

All these articles are available on request.

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