Why Nobilis Gumboro D78 should be your first line of defence

**D78 is a plaque purified vaccine...**
- Single virus sub-population.
- Predicable vaccine response.
- No reversion to virulence.

**D78 causes minimal bursal damage...**
- No immunosuppression or secondary infection.
- More uniform flocks for easier management and marketing.
- Improved feed conversion and production efficiency.

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### Suggested vaccination schedule

<table>
<thead>
<tr>
<th>Description</th>
<th>Nobilis Gumboro D78 is a live freeze-dried vaccine against Infectious Bursal Disease (IBD) containing at least 4.0 log10 TCID50 per bird dose.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication</td>
<td>Active immunisation of chickens against Gumboro disease (IBD).</td>
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<td>Administration</td>
<td>The vaccine can be administered through the drinking water.</td>
</tr>
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<td>Nobilis Gumboro D78 is available in vials of 1000, 2500, 5000 and 10,000 doses.</td>
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**Future layers/breeders**

<table>
<thead>
<tr>
<th>Day</th>
<th>Parents vaccinated with an inactivated vaccine</th>
<th>Parents not vaccinated with an inactivated vaccine</th>
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<tr>
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<td></td>
</tr>
<tr>
<td>14 - 24</td>
<td></td>
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**Broilers**

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<th>Day</th>
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*When IBD titres are uniform, one vaccination will normally be sufficient.

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Visit [www.gumboro.com](http://www.gumboro.com)

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Nobilis’ Gumboro D78

The world’s No. 1 name in Gumboro control

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Your first line of defence against Gumboro
Gumboro disease: a potent threat

When Gumboro field virus attacks, it causes:

- Bursal damage
- Secondary infections
- Poor feed conversion
- Mortality
- Immunosuppression
- Uneven flocks
- Lower production efficiency

Nobilis Gumboro D78: an effective defence

Trials with recently isolated (2002) pathogenic strains of IBDV demonstrate that Nobilis Gumboro D78 is outstandingly effective:

- Protects against bursal damage.
- Breaks through higher levels of maternally derived antibodies (MDA) than other widely used intermediate Gumboro vaccines.
- Prevents clinical symptoms of Gumboro Disease.

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Protection as evaluated by antigen capture ELISA

Trial 1

- 4 groups of SPF (specific pathogen free) chickens.
- 2 groups vaccinated with D78 at 14 days.
- 2 groups unvaccinated controls.
- All groups challenged at 28 days with recently isolated (2002) pathogenic field strains of Gumboro virus.
- D78 effectively prevents clinical symptoms of Gumboro Disease.
- Zero morbidity and mortality in the face of viral challenge.

Trial 2

- Two controlled trials evaluating D78 and two competitor intermediate vaccines in broilers with maternally derived antibodies.
- Average virus neutralisation (VN) titre at time of vaccination was approximately 8 log2.
- Broilers were challenged with a virulent Gumboro virus (ref. strain F52/70).
- Efficacy was evaluated by measuring the concentration of challenge virus in the bursa 3 days post-challenge. Birds with <1000 ELISA units/gram bursa are considered protected.
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<th>Trial 1</th>
<th>Trial 2</th>
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<td>76% vs 2%</td>
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3/4 & 5/6 days post challenge

D78 + Challenge Strain 1
No vaccine + Challenge Strain 1
D78 + Challenge Strain 2
No vaccine + Challenge Strain 2

Score 1 = 100% Lymphocyte depletion

Morbidity and mortality following challenge

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Bursal damage: Lymphocyte depletion score

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<tr>
<td>% of flock protected</td>
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</tr>
<tr>
<td>D78</td>
<td>Challenge Strain 1</td>
</tr>
<tr>
<td>40%</td>
<td>60%</td>
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(More than 5 = 100% Lymphocyte depletion)
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