For further information about IBR and Rispoval IBR marker vaccines, please contact:

- *Your Veterinary Surgeon*
- *Your local Pfizer representative*
- *Pfizer Animal Health*

RISPOVAL™ IBR MARKER VACCINES

Pfizer Animal Health

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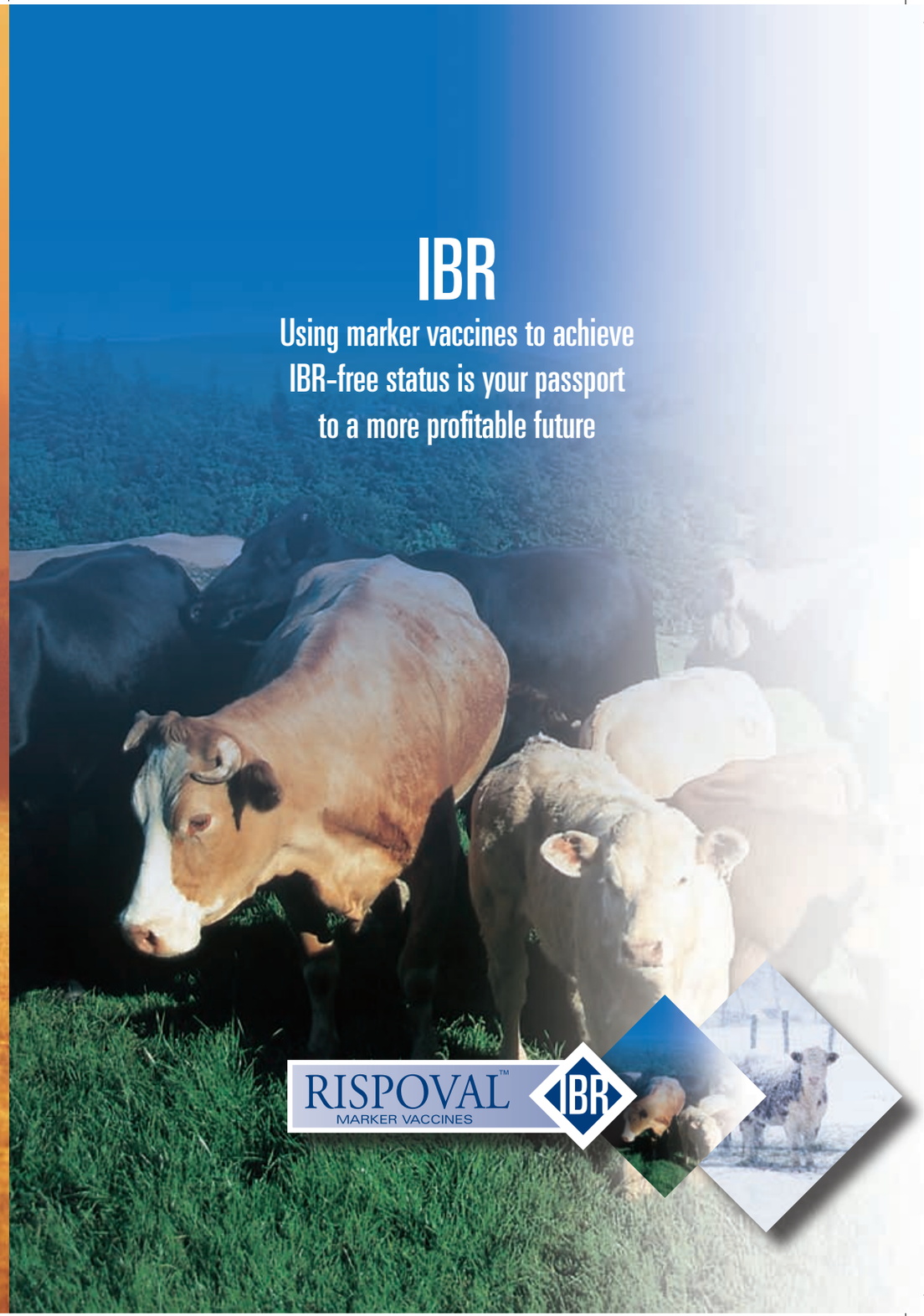
IBR

Using marker vaccines to achieve IBR-free status is your passport to a more profitable future



RISPOVAL™ IBR MARKER VACCINES

Why you need to start protecting your herd now!

A new look at the importance and control of BHV1-IBR

What is IBR?

Infectious Bovine Rhinotracheitis (IBR) remains a common cause of respiratory disease in both young stock and adult cattle in Ireland. In the past, economic losses have resulted mainly from the illness and death it can cause, although it is also important to those who are selling breeding stock. In the future, as other European countries eradicate the disease and place restrictions on the importation of cattle, the loss of value will become increasingly important to those producers who want to export live cattle to continental Europe.

IBR is caused by a virus – Bovine Herpes Virus 1 (BHV1). It is highly contagious and can quickly spread through a group of cattle – it can spread by direct contact, infected semen, by airborne spread and other indirect methods. BHV1 principally affects the upper respiratory tract and can lead to fatal pneumonia.

The secretions of affected calves are extremely infectious and appear to be highly attractive to other animals. All ages of animals are potentially at risk.

Once an animal has become infected, it remains infected for life, despite the development of an effective immune response. These animals can shed virus at any time when stressed and, as a result, movement of animals into a herd is often a source of new infections.

While older animals can suffer from 'classical IBR', which often develops after re-stocking, IBR is often more significant in young stock. IBR damages the respiratory tract so secondary bacterial infections and death can easily occur.

Herd problems caused by IBR

- Respiratory disease
- Milk drop
- Reproductive failure
- Death

From the early 1960s to the mid 1970s, BHV1 had been reported in the UK. However, in the winter of 1977-78, cases of transit fever were reported in the north east of Scotland. Affected animals were showing upper respiratory tract symptoms and the response to prompt antibiotic treatment was poor.

Subsequently, this was confirmed to be a particularly severe form of BHV1. It is now certain that this virulent form of BHV1 was imported with infected animals, probably Holsteins.

BHV1 was first identified in the Republic of Ireland in 1988. While there are no recent prevalence data available for the disease in Ireland, it is likely that the disease is now endemic in the national herd.

IBR – The disease

Symptoms

In calves, the initial signs of BHV1 infection are increased coughing, a fever of up to 107°F (41.7°C) and a general dullness. Affected calves lose their appetite and consequently don't gain weight. As the infection progresses, there is a discharge from the eyes and nose and they may drool saliva.

In adult cows, one of the early signs of BHV1 infection is a reduction in milk yield. As the virus takes hold, foetal infection and abortion may result.

In more serious cases of BHV1, older cattle also develop respiratory tract problems and, as the opportunity for secondary bacterial infections increases, this is likely to result in acute pneumonia.

BHV1 – 'dormant' or 'latent' infection

A further feature of the BHV1 virus is its ability to lie dormant. In this state, an affected animal will be indistinguishable from uninfected animals. However, latent infection can easily be reactivated and can then spread to other cattle.

This situation poses a problem as it allows a BHV1 infected animal to remain undetected, and the subsequent introduction of an undetected 'dormant' infected animal to a herd could have serious consequences.

Why should I act now against IBR?

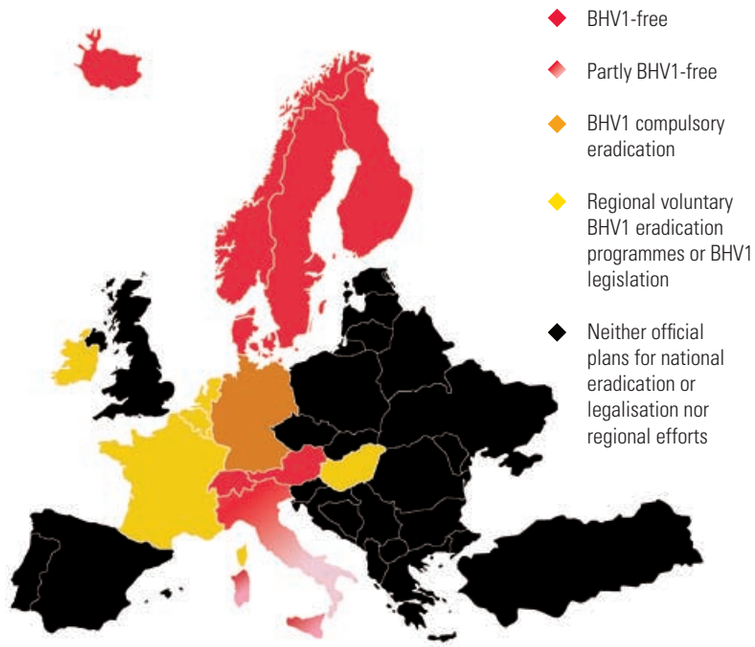
For the commercial milk, meat and calf producer, the focus will mainly be on controlling the clinical signs of IBR routinely, as part of a pneumonia vaccination/control programme, or in the face of an outbreak.

In these situations, Rispoval IBR marker vaccines can be used to provide effective protection against the clinical signs of IBR disease. They can be used in just the same way as you may previously have used a conventional non-marker IBR vaccine, such as Imuresp™ RP. Where possible, animals should be vaccinated before being exposed to any challenge. Vaccinating in-contact animals in the face of an outbreak is an alternative approach, but is a less effective way of controlling the disease.

European legislation requires that bulls producing semen for A.I. must be free of antibodies to BHV1, so the ICBF National Bull Performance Test Centre at Tully allows entry only to bulls that have no antibodies to BHV1. For pedigree breeders in Ireland the situation is very clear: without taking appropriate steps to eradicate IBR from their herds, the opportunities for sale will become increasingly limited.

Furthermore, if increasing numbers of pedigree breeders develop strategies to reach and maintain freedom from BHV1 it is likely that there will be knock on effects on domestic trade of pedigree animals. It is possible that pressure from these breeders could lead to shows and sales becoming limited to animals which are shown to be BHV1-free. The restrictions won't apply only to bulls. Pedigree breeders, seeking to protect their high value bulls, may refuse to buy-in female breeding stock unless they come from IBR-free herds.

Current European status of eradication programmes



What are the advantages of eradicating IBR?

If you do act now, you can benefit from a variety of health and productivity benefits. It makes sense to act now.

Have I got IBR on my farm?

IBR may be more common than you think. There are some simple tests your Veterinary Surgeon can carry out to establish if your cattle are BHV1-positive.

What do I need to do if my cattle have IBR?

After the current levels of IBR in your herd are established and monitored, risk assessment and biosecurity programmes need to be developed. Then an appropriate vaccination programme needs to be introduced. Your Veterinary Surgeon can help you with the development of the right programme for your situation.

The benefits of Rispoval IBR marker vaccine

Rispoval IBR is a '**marker**' vaccine that is now available and it has been specially formulated with BHV1 eradication programmes in mind. As a marker vaccine it will, in the future, allow you to make a clear distinction between animals infected with the field organism and those that are uninfected but vaccinated. Rispoval IBR is also the **only** vaccine that is available in two formulations – live or inactivated, giving you maximum flexibility for rapid or longer-term control.

Rispoval IBR marker vaccines:

- Protect against IBR and its associated diseases
- Help you to progress towards BHV1-free status
- Increase the value of your herd

For more information about IBR and how you can eradicate it, please contact your Veterinary Surgeon

What strategies do I need to achieve BHV1-free status?

The initial level of IBR in the herd and the replacement rate of animals will affect the rate at which IBR can be eradicated.

Achieving BHV1-free status requires careful testing, vaccination, monitoring and stringent biosecurity procedures. All these measures need to be deployed as part of an overall strategy to achieve success.

Your Veterinary Surgeon can give you all the advice you need about when and what type of vaccines you should use, how many doses are required and how often booster doses should be given.

Clinical disease and high herd level of antibodies

Aim: *stop and prevent spread of IBR as soon as possible*

- In young calves - early protection with Rispoval IBR-Marker Live
- In older animals - prevent spread of IBR using Rispoval IBR-Marker Inactivated
- All animals 6 monthly booster vaccinations
- Monitor progress with gE test, which distinguishes vaccinated cattle from animals that have been infected naturally
- Once you reach approximately 40% positive on testing, move to **low herd level of antibodies** action plan

Low herd level of antibodies

Aim: *eradicate IBR*

- Continue vaccination strategy
- If there is a low risk of re-introduction of IBR consider use of Rispoval IBR-Marker Inactivated vaccine
- Continue testing with gE test
- Once you reach a level of approximately 10% positive on testing, consider culling/selling remaining positive animals

BHV1-free status

Aim: *to stay free of wild BHV1 antibodies*

- If high risk of re-introduction of IBR
  - Consider continuation of vaccination strategy
  - Use Rispoval IBR-Marker Inactivated vaccine only
  - Do NOT vaccinate male animals that may be destined for performance testing or semen production
  - Vaccinate lower value animals, leaving high value animals un-vaccinated and protected by herd immunity, so that they will be suitable for entry to bull studs or future sale
- If low risk of re-introduction of IBR
  - Don't vaccinate
  - Biosecurity is essential as herd will become totally naïve
  - Consider vaccinating animals prior to sale to lower status herds, as they will be highly susceptible to IBR