IRISH EQUINE CENTRE
PROTECTING ANIMAL HEALTH

WBFSH General assembly
Dublin October 2026

Environmental management strategies.



www.irishequinecentre.ie
nutrition@irishequinecentre.ie

IN PARTNERSHIP WITH

HORSE SPORT IRELAND
www.horsesportireland.ie

Our aim is to protect the wellbeing of Ireland's horse population



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What the Irish Equine Centre does

- Global Surveillance
- Monitor entire herd health
- Ongoing testing for all breeds
- Diagnostics
- Research, development and education
- Education and knowledge transfer

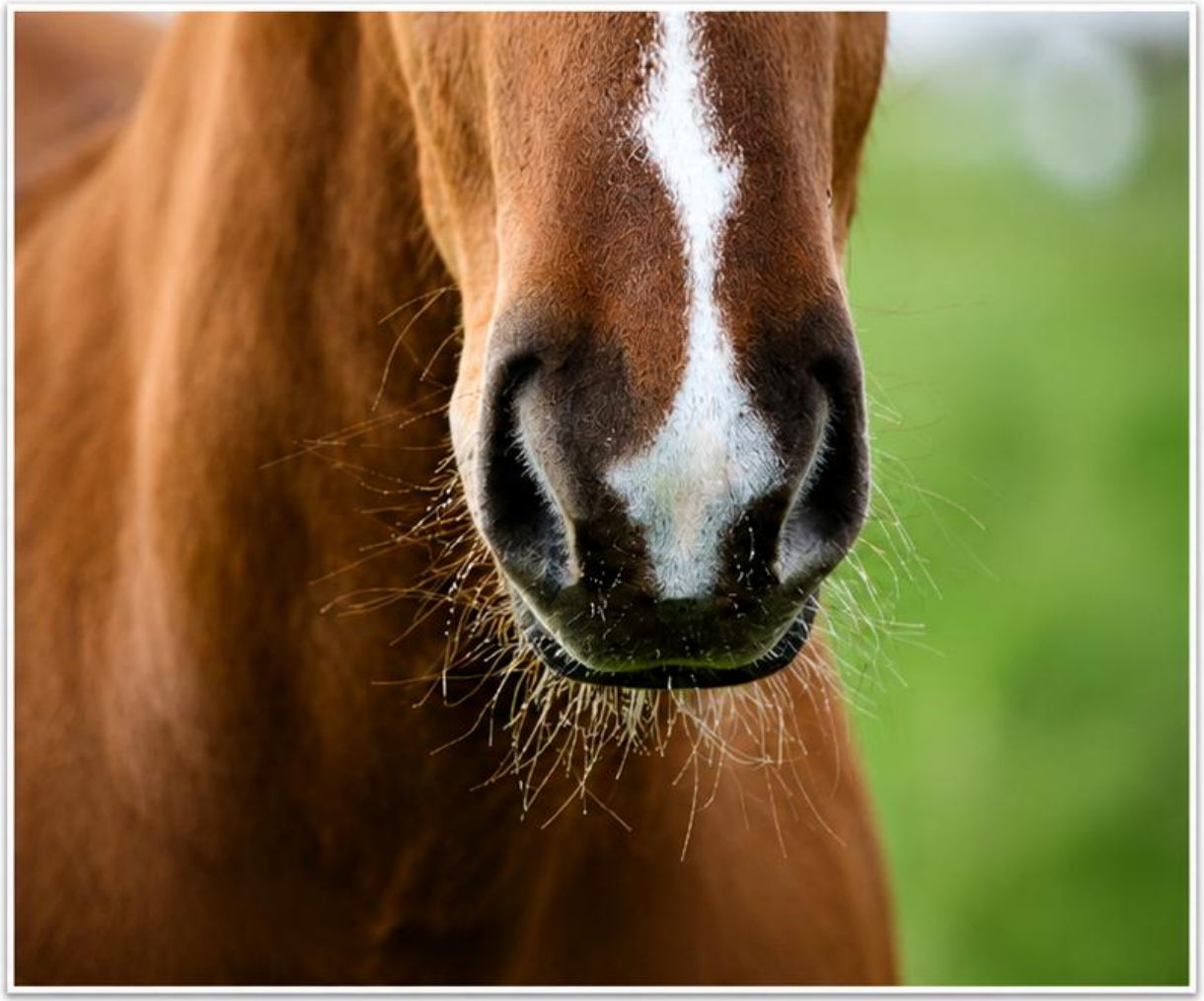


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Why do we do it?

- Invested in the entire horse population
- High health status
- Emergency preparedness
- Freedom of movement
- Healthy pregnancies
- Healthy foals
- Helps to keep the horse business viable



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IEC Environmental Health Strategies

Performance Investigations

Identify environmental factors linked to poor performance in competition and performance yards.

Disease Investigations

Investigate respiratory and enteric disease in stud farms.

Biosecurity Protocols

Design tailored biosecurity protocols for racing yards, sport horse yards, stud farms, racecourses, showgrounds, vet practices and sales complexes.

Environmental Monitoring

Monitor environments in all equine premises, including soil and grass monitoring to prevent disease.

Nutritional Management

Support full farm nutritional management, including soil, grassland, forage, feed and supplementation.

Yard Design and Advice

Advise on yard and stud farm layout, design and ventilation.

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Biosecurity

Providing security from exposure to harmful pathogens to include parasites, bacteria, viruses and fungi.



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Biosecurity Makes Financial Sense!

Minimize Disease,
Maximise Performance

- Horses will always get sick.
- Over a full season we can lower the incidences of disease. It takes a mindset and discipline.
- Being proactive is always cheaper than being reactive.
- Preventative measures can greatly reduce treatment, loss of time in development, labour costs and loss of performance.
- Attention to detail and control over the parameters we can control.
- Good biosecurity takes planning and involvement from everyone but must still be practical in a busy farm/yard.

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Sources of Environmental Pathogens

Airborne Pathogens

- EVA
- EHV
- Equine Influenza
- Strangles
- Ticks (EIA, Piroplasmosis)
- Moulds
- R. equi

Soil/Surfaces

- Moulds
- Strangles
- Influenza
- R. Equi
- Salmonella
- Lawsonia
- Clostridium

Reproduction Pathogens

- CEM
- Klebsiella
- Pseudomonas
- EVA
- EIA
- Rotavirus

Parasites

- Liver Fluke
- Worms
- Lungworm
- Crypto
- Ringworm
- Mites
- Ticks

Water

- Crypto
- Faecal Bacteria
- High Iron and Antagonistic Metals

Feed/Fodder/Bedding

- Mould
- Mycotoxins
- Ringworm

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Factors Which Influence Disease in Stud Farms

- Stocking Density
- Yard Layout
- Ventilation/Dampness
- Hygiene
- Feed/Forage/Water Quality/Storage
- Animals and Humans
- Paddock condition and hygiene
- Stocks





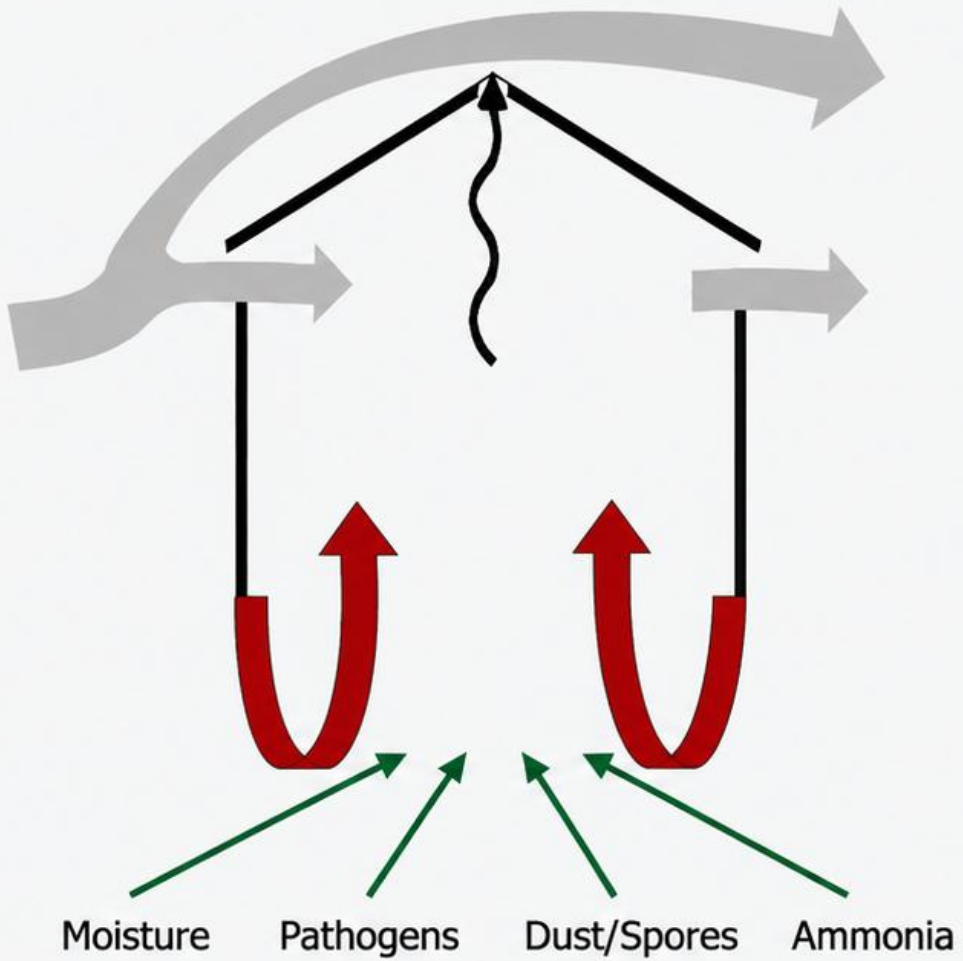


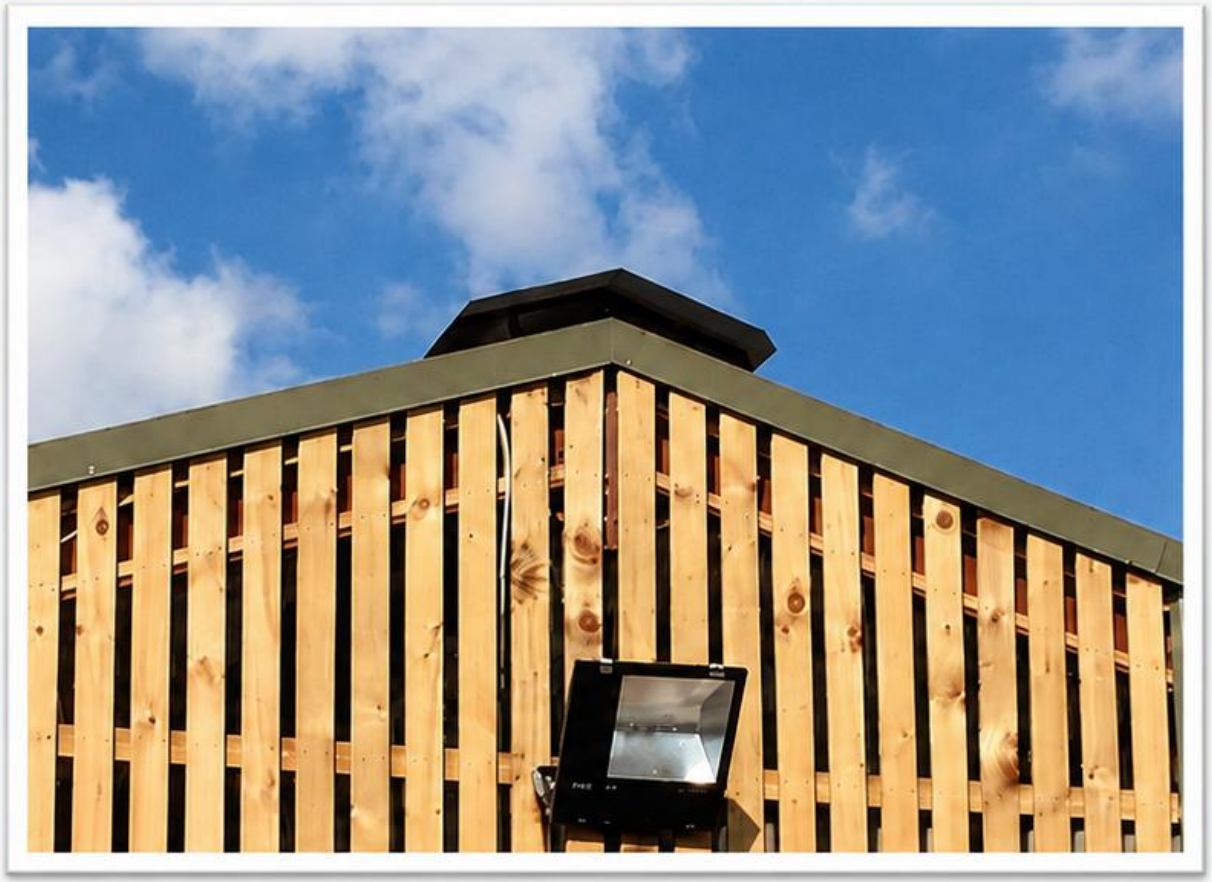


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Ventilation





Well Ventilated Mare and Foal Barn



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General Layout

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Stable yard orientation.



Multiple small paddocks close to the yard.



No shared airspace (stables, feed/fodder stores, exercise areas, rug rooms, tack rooms, reproductive units).



Isolation of mares, foals, yearlings, barren mares.



Isolation unit.



Manure heap.

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Yard Layout

Wind Direction

Pathogens

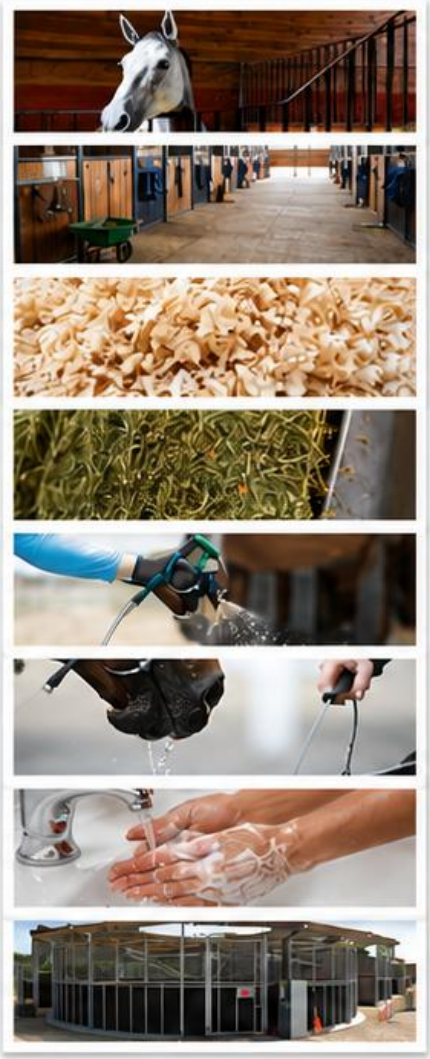


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Key Areas Of Concern

- Yard Hygiene
- Stable Hygiene
- Bedding Quality
- Forage Quality
- Disinfection Routine
- Walkers and Stocks Hygiene
- Staff/Professionals Hygiene
- Isolation



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Simple Can Make the Difference



Disinfect stocks every day. Extreme hygiene required in foaling units, stocks and transport vehicles.



Never use the same wheelbarrows for hay and mucking out. Different barrows also required for straw during an outbreak of enteric disease.



Never store mucking out equipment in feed houses.



Veterinary staff to **thoroughly clean scanning probes** between scannings.



Veterinary staff to **wear disposable gloves** between scannings.



Veterinary and farriers to **attend infected animals last.**



Remove used bedding from infected stables, away from the yard ASAP.



Isolation, Isolation, Isolation using dedicated staff.

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Land Management Challenges

- Climate change
- Rising costs
- Disease risks
- Soil degradation
- DOD's and injuries
- Public image



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Sustainable Stud Farm Practices

Practical measures that improve both the environment and horse health.

- Aeration
- Organic matter inputs
- Cushioned surfaces
- Water holding capacity
- Reduced chemical input
- Cross grazing
- Increased hedging
- Reduced pasture borne disease



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Early-Life Management of Foals

The first months and years are critical for sound development and lifelong soundness.

Balanced nutrition
Supports optimal growth of bone, cartilage and soft tissues.

Appropriate exercise on appropriate surfaces
Encourages natural movement to build strength and support correct musculoskeletal development.

Healthy growth rates
Avoids rapid growth and excess weight gain.

Parasite control, prevent soil borne diseases
Reduces internal parasite burden and lowers the risk of soil borne diseases.

Safe and low-stress environment
Clean, well-drained paddocks and stable social groups support physical and mental wellbeing.



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Case Study 1: *R. equi* Outbreak

NATIONAL HUNT STUD FARM

- Resident and boarding stock.
- 2021 they treated 75% of foals for *R.equi* (150 foals).
- Owners wouldn't take infected stock home.
- Staff became disillusioned.
- Approx cost of treatment, scanning and losses **€95,000**

CHANGES IMPLEMENTED & OUTCOMES

1. **Reduced** stock numbers.
2. Walk in mares only.
3. Extreme disinfection in stocks, foaling unit covering shed.
4. Hard cored all gateways, roadways and around water troughs. | Cost **€80,000**
5. Early detection.
6. 2022 they treated 5% of foals.
7. Approx cost of treatment, scanning and losses **€6,000**

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Case Study 2: *Clostridial* Outbreak

5 commercial stud farms in one area.

Low incidence of Rota virus, 32 cases of *Clostridial* scour in foals and 3 deaths.

YARD NO 1	YARD NO 2	YARD NO 3	YARD NO 4	YARD NO 5
✓ Very Clean ✓ Clean straw ✓ Clean hay ✓ Wash legs ✓ Res mares only	✓ Very Clean ✓ Clean straw ✓ Clean hay ✓ Wash legs ✓ Res mares only	✓ Very Clean ✓ Clean straw ✓ Clean hay ⚠ Don't Wash legs ● Mixed mares	⚠ Very dirty ⚠ Suspect straw ✓ Clean hay ⚠ Don't Wash legs ● Mixed mares	⚠ Very dirty ⚠ Suspect straw ✓ Clean hay ⚠ Don't Wash legs ● Outside only
100% Pos. Clostridia **5%** Pathogenic fungi.	100% Pos. Clostridia **10%** Pathogenic fungi.	100% Pos. Clostridia **35% Pos.** Pathogenic fungi.	100% Pos. Clostridia **75% Pos.** Pathogenic fungi.	100% Pos. Clostridia **85% Pos.** Pathogenic fungi.
Scours ?	Scours ?	Scours ?	Scours ?	Scours ?

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100% Pos. Clostridia samples. **5% +** Pathogenic fungi samples.	100% Pos. Clostridia samples. **10% +** Pathogenic fungi samples.	100% Pos. Clostridia samples. **35% +** Pathogenic fungi samples.	100% Pos. Clostridia samples. **75% +** Pathogenic fungi samples.	100% Pos. Clostridia samples. **85% +** Pathogenic fungi samples.
0 cases of Clostridial scour.	0 cases of Clostridial scour.	4 cases of Clostridial scour.	12 cases of Clostridial scour. 1 associated death.	16 cases of Clostridial scour. 2 associated deaths.

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The Environmental Testing Scheme Package



Hygiene status of key communal areas

- Foaling box
- Stocks
- Nursery paddocks

Extensive forage analysis

- Hygiene
- Zearalenone screen
- Nutrition
- Minerals

Water quality assessment

- Bacterial screen
- Physiochemical parameters

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Key Takeaways

Critical-control areas

- Foaling boxes
- Stocks
- Nursery paddocks
- Feed houses
- Hay stores

Importance of testing

- **Prevent** disease
- **Targeted** hygiene
- **Decrease** resistance
- **Healthy** valuable stock
- **Targeted** nutrition
- Make **informed decisions** based on facts

Control what you can



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Thank you for listening!

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