

SENSITEST

THE COMPLETE
ALLERGY SERVICE



GUIDE TO
EQUINE
ALLERGY
TESTING

INNOVATION IN
ANIMAL HEALTHCARE

 **Avacta**
ANIMAL HEALTH

THE COMPLETE ALLERGY SERVICE

Developed and manufactured in the UK to provide a UK/North European relevant testing panel.

For almost 20 years we've been assisting veterinary surgeons with their diagnosis of allergies in dogs, cats and horses. Based in Wetherby, Yorkshire, UK, we have a growing team of research and development scientists, manufacture our tests in-house and have a knowledgeable, friendly customer service team on hand to provide support and guidance through your allergy cases.

Horses and ponies can develop allergies just like cats, dogs and humans. A horse's immune system can be stimulated by normally harmless allergens (foods, pollens, insects, and moulds) that may be ingested, inhaled or encountered by direct contact.

The most frequent allergic reactions are associated with respiratory and/or dermatological symptoms. These diseases can result in loss of performance in competition horses and can cause great discomfort and in severe cases become debilitating to leisure horses and ponies.

CLINICAL SYMPTOMS

DERMATOLOGICAL

- **Pruritus**- Frequent itching and rubbing of the skin
- **Summer Seasonal Recurrent Dermatitis**- 'Sweet Itch', common term used to describe the hypersensitivity to the saliva of the culicoides species, subsequently causing infection and can be extremely debilitating in severe cases
- **Urticaria**- Commonly known as hives, urticaria can be due to exposure to a whole range of allergens including feed components, pollens and moulds

RESPIRATORY

- **Recurrent Airway Obstruction (RAO)/Chronic Obstructive Pulmonary Disease (COPD)**- Associated with inhalation of environmental allergens which create an increase in mucus production and inflammation of the airways. If left undiagnosed, these diseases can cause irreversible damage to lung tissue
- **Headshaking**- Can range from snorting and sneezing to severe shaking of the head and neck. Chronic headshaking can be associated with inhalation of pollens and other environmental allergens, predominantly in the warmer months

GASTROINTESTINAL

- Weight loss
- Loose droppings
- Recurrent bouts of low-grade colic

BEHAVIOURAL

- Unexplained and sudden changes in temperament
- Loss of performance in competition horses
- Lethargy



WHY SEROLOGICAL TESTING?

Serological tests are a major aid to diagnosis by providing rapid and easy identification of potential offending allergens.

The ELISA technology has the following advantages:

- Quick and easy – serum sample sent to laboratory
- Requires minimal patient preparation – no clipping or discomfort
- No adverse reactions
- No need for referral
- Standardised procedure
- Excellent reproducibility
- Not influenced by existing skin pathologies
- Not necessary to withdraw medications (except high dose corticosteroids)

Although Intradermal Testing (IDT) has been considered the “gold standard” for the diagnosis of allergic disease, there are limitations to this technique such as extensive patient preparation, sedation and it’s time-consuming nature. Furthermore, recent data has suggested that the sensitivity and specificity of IDT vs serology is comparable and the reliability of IDT is less than expected for a “gold standard” technique.

WHY SENSITEST®?

- Founded in 1999 (YorkTest Veterinary Services) with the specific aim of developing unique serological allergy tests in the veterinary field, we have extensive experience in this area.
- We have the latest innovations in technology and leading research and development scientists.
- **SENSITEST®** complete allergy tests use a highly specific monoclonal antibody to avoid cross reactivity with other immunoglobulins.
- Tests are manufactured in our Yorkshire laboratory giving complete process and quality control.
- UK native species of plant allergens.
- Knowledgeable friendly customer service team to provide support and guidance through your allergy cases.
- Dedicated client support literature to inform your clients and aid compliance.
- Personalised results packs with every test.
- Storage facility to hold samples free of charge for 3 months when you suspect allergy in your case workup, but are not ready for serological analysis.
- Free pre-paid postal packs to submit samples.
- Results within 7-10 working days from receipt of sample.

TEST PERFORMANCE

	Percentage of samples for IgE assay (%)	Percentage of samples for IgG assay (%)
Intra-assay	94% +/- 1 Class Score 100% +/- 2 Class Scores	100% +/- 1 Class Scores
Inter-assay	85% +/- 1 Class Score 99% +/- 2 Class Scores	100% +/- 1 Class Score

Intra assay data obtained by analysis of 8 samples repeated 5 times on key allergens.
Inter assay data obtained by analysis of 20 samples over 3 days on key allergens.

In the IgE assay 94% of assessed samples demonstrated results within ± 1 score when tested multiple times within one plate (intra-assay variation) or 85% when analysed on different days (inter-assay variation).

In the IgG assay 100% of assessed samples demonstrated results within ± 1 score when tested multiple times within one plate (intra-assay variation) or when analysed on different days (inter-assay variation).

When those criteria have been widened 99-100% of assessed samples demonstrated results within ± 2 score when tested multiple times within one plate (intra-assay variation) or when analysed on different days (inter-assay variation).



SEROLOGICAL EQUINE ALLERGY TESTS AND PANELS

EQUINE TESTS

Test	Test Details
Insects	Insect allergens IgE
Food	Food allergens IgE, IgG
Environmental and Insects	Environmental and insect allergens IgE
Food, Environmental and Insects	Food, environmental and insect allergens

Screening	Test Details
Environmental and Insects Screen	Includes 5 panels; weeds, trees, grasses, indoor and insects Investigate 1 panel Investigate 2 panels Investigate 3 panels Investigate 4 or more panels

EQUINE PANELS

The panels have been extended to include more allergens relevant in the UK/North European climatic zones.

FOOD

Wheat
Oats
Barley
Rye
Alfalfa
Carrot
Sugar Beet
Soybean
Corn (maize)
Flaxseed
Pea
Cod Liver Oil

INSECTS

Culicoides
Black Fly
Mosquito
Horse Fly
Stable Fly
House Fly

INDOOR

Alternaria alternata
Aspergillus mix
Cladosporium herbarum
Penicillium mix
Grain Mill Dust
D. pteronyssinus
D. farinae
E. maynei
L. destructor
A. siro
T. putrescentiae

ENVIRONMENTAL

GRASS POLLENS

Rye, perennial
Timothy
Orchard Grass (cocksfoot)
Sweet Vernal
Meadow Fescue
Meadow Grass (Kentucky bluegrass)

WEED POLLENS

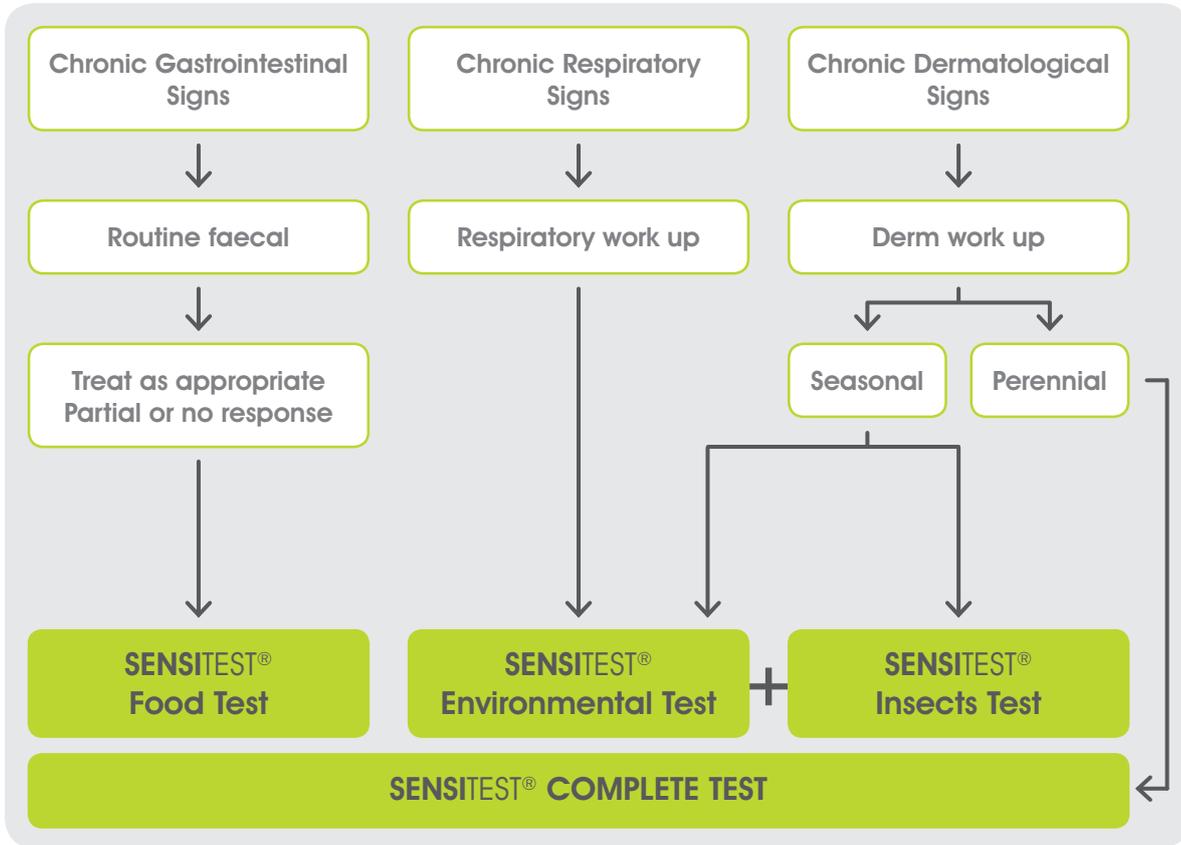
Plantain
Mugwort
Ragweed
Dock, yellow/curly
Lamb's Quarter
Daisy
Dandelion
Nettle
Clover
Oil Seed Rape

TREE POLLENS

Alder
Birch
Hazel
Privet
Oak
Beech
Ash
Scots Pine
Willow
Horse Chestnut
Sycamore



APPROACH TO EQUINE ALLERGY



Our dedicated Customer Service team are available to provide technical support both pre-test and post-test, together with treatment guidance.

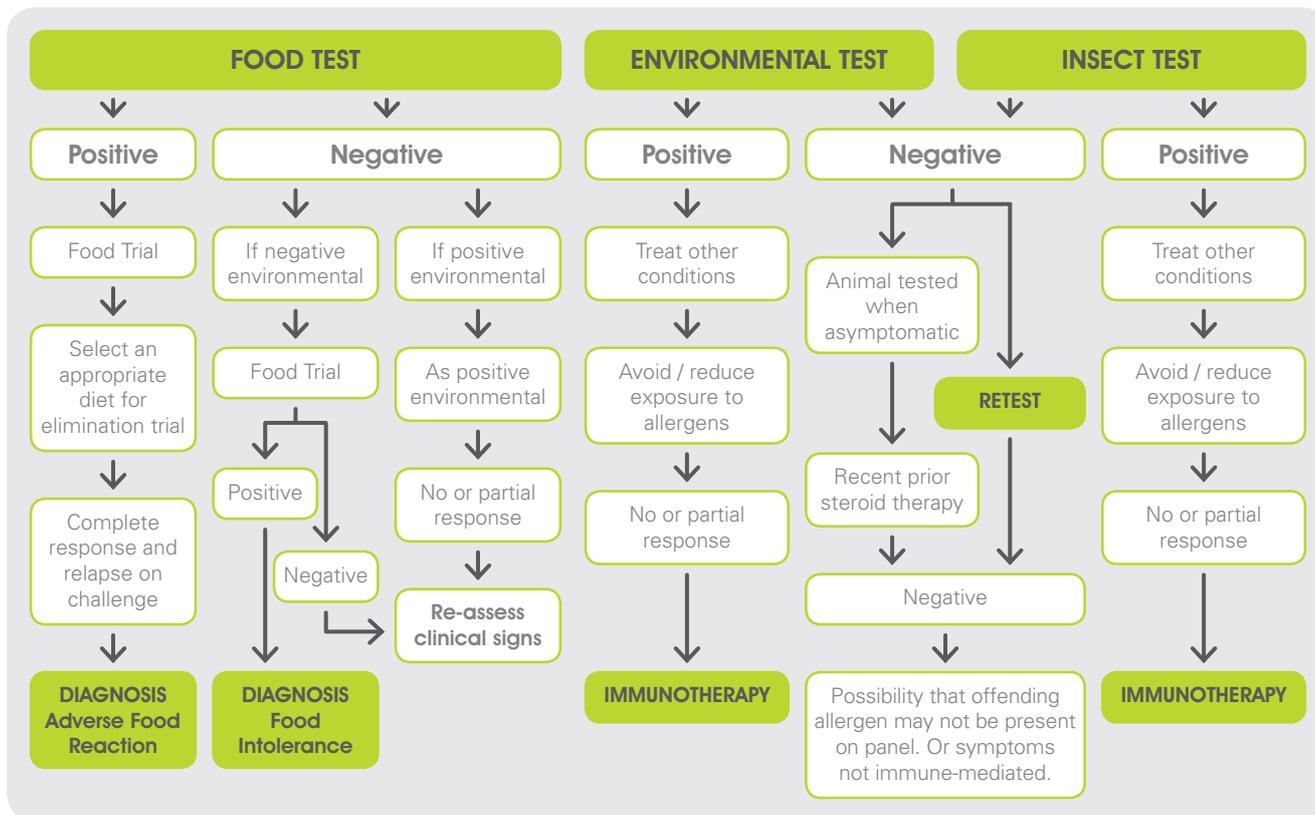
0800 8494 550

customer.services@avacta.com

For more information visit **avactaanimalhealth.com**



EQUINE TEST INTERPRETATION



TREATMENT OF ALLERGIES

The **SENSITEST** results provide a useful tool for the veterinary surgeon and horse owner to aid in the diagnosis and indicate the most suitable actions to take.

If foods are identified, then an elimination diet is advised. Avoidance of scoring allergens is necessary for a period up to 10-12 weeks.

If environmental allergens, such as insects or pollens are pinpointed, avoiding or controlling these is more difficult, but there are methods of reducing the exposure.

Immunotherapy is the foremost treatment for environmental/insect allergens but other medication may be required for certain cases.

IMMUNOTHERAPY TREATMENT

The aim of allergen-specific immunotherapy or desensitisation vaccines is to make the horse tolerant

to the environmental allergens responsible for their symptoms by introducing increasing amounts of the allergens to which they are sensitive. Culicoides can also be included as part of the immunotherapy treatment set. It is one of the safest and most effective treatments for allergy and unlike other therapies targets the root cause of the allergy and provides long term relief from the symptoms.

The treatment is administered by subcutaneous injection. Adverse reactions are exceptionally rare. The initial treatment lasts for 10 months with a dosage regime that gradually increases until the maximum tolerate dose is reached. This is followed by the maintenance treatment.

The length of time for a response to be seen varies from horse to horse but differs between 4 and 12 months. Treatment may be continued for life as premature discontinuation may result in the symptoms recurring.

Allergen-specific immunotherapy has a very good success rate and obviates the need for long term medication such as steroids which can have serious side effects.