

NATIONAL SCRAPIE PLAN FOR GREAT BRITAIN



A Breeding Programme For Scrapie Resistance

THE RAM GENOTYPING SCHEME

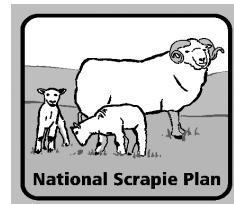
As part of the Rural Development Plans for England and Wales and the Agriculture Strategy for Scotland, Government is introducing a National Scrapie Plan (NSP) for Great Britain with the aim of reducing and eventually eradicating scrapie from the national flock.

The first phase of the NSP will be a breeding programme for genetic resistance to scrapie consisting of a number of “genotyping” schemes for different sectors of the industry. This leaflet introduces the first of these schemes, **The Ram Genotyping Scheme**.

For any questions on the National Scrapie Plan please telephone the NSP helpline number on:

☎ 0845 601 4858 (local rates apply)

You can also write to us at the:



**National Scrapie Plan
Administration Centre
(NSPAC),
Whittington Road,
Worcester,
WR5 2SU**

For any specific questions relating to Scotland, England or Wales you can also contact:

SEERAD NSP Branch, Room 348, Pentland House,
47 Robb's Loan, Edinburgh EH14 1TY ☎ 0131-
244-3375

DEFRA NSP Branch, Area 305, 1A Page Street,
London SW1P 4PQ ☎ 020-7904-8210

NAWAD APD 3, First Floor, Cathays Park, Cardiff
CF10 3NQ ☎ 02920 823189

A sheep's resistance or susceptibility to scrapie can be determined by genotyping, the testing of a blood sample which looks for certain information present on the sheep *Prion Protein* (PrP) gene. This information – the genotype - determines whether or not a sheep may develop scrapie if exposed to the disease agent.

The Ram Genotyping Scheme will eventually require participating flock owners to use rams of only the most scrapie resistant genotypes. Research suggests that these particular genotypes also confer resistance to (experimental) Bovine Spongiform Encephalopathy (BSE). Whilst there is no evidence that BSE has transmitted to sheep, we cannot yet rule out the possibility and increasing the prevalence of resistant genotypes in the national flock will protect against that risk.

The Ram Genotyping Scheme will be open to owners of purebred (pedigree) flocks that are registered with a recognised Breed Society or similar pedigree breed organisation recognised by the National Sheep Association. The Government will meet the cost of genotyping, electronic identification devices and certification.

Your questions answered:

Is the Ram Genotyping Scheme compulsory for sheep breeders?

No, participation is voluntary. However, you have to sign a contract to abide by the scheme rules.

Will all of my rams be genotyped?

All of your stock rams will be genotyped together with a proportion of ram lambs.

Can I have my breeding ewes tested?

Under this Scheme we are aiming to collect 40 blood samples per flock visit. This will give scope, in many cases, to test a number of your breeding ewes as well as your stock rams and ram lambs.

When will my rams be genotyped?

Subject to laboratory testing capacity we will try to meet any preference stated in your application.

How will my rams be identified?

They will be implanted with an electronic identification device – a ruminal bolus. This will contain a unique number which can be scanned and read with appropriate equipment. Other marks (such as existing ear tags) will also be recorded.

Will my rams be certified?

All rams will receive a certificate showing their genotype except those with the most susceptible “VRQ” gene which must be slaughtered or castrated.

Will I have to cull any of my rams?

You **will** be required to slaughter or castrate rams with the most susceptible “VRQ” genotype to prevent their use for further breeding. Appeals will only be considered in exceptional circumstances.

How do I go about buying replacement stock?

You will be able to buy replacement stock in the normal way. If the animal does not have an NSP Certificate or has been commercially genotype tested, it will need to be tested under the NSP and issued with a certificate before it may be used for breeding.

Will I be able to sell my breeding stock?

Yes. You will be able to sell your genotyped sheep in the usual way, ideally to other NSP flock owners. To facilitate the movement of resistant rams and sourcing of replacements, Government will maintain and make publicly available a register giving details of each animal and its owner.

Which genotypes will be permitted for use under normal circumstances?

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ARR / ARR	Sheep that are genetically most resistant to scrapie.
ARR / AHQ ARR / ARH ARR / ARQ	Sheep that are genetically resistant to scrapie, but will need careful selection when used for further breeding.
ARQ / ARH ARQ / AHQ AHQ / AHQ ARH / ARH AHQ / ARH ARQ / ARQ*	Sheep that genetically have little resistance to scrapie but may be sold or used for breeding without restriction until the end of 2004. After this period, any ram on a scheme farm may continue to be used for breeding for a further 3 years (except *), or until the end of its life (whichever the sooner).
ARR / VRQ	Sheep that are genetically susceptible to scrapie but may exceptionally be used for further (controlled) breeding in the context of an approved breeding programme.
AHQ / VRQ ARH / VRQ ARQ / VRQ VRQ / VRQ	Sheep that are highly susceptible to scrapie and must be humanely slaughtered or castrated.

*** subject to scientific review after the first year.**

Will I have to pay for testing?

Government will fund the costs of the farm visits to take blood samples from your animals, genotype testing, the electronic identification device and the reporting of results and issue of certificates. It will not pay for the cost of slaughtering (or castrating) rams of highly susceptible genotypes.

Can I join the Scheme if my farm is under Foot and Mouth Disease (FMD) restrictions?

Eligible farmers who have been affected by FMD are strongly encouraged to complete and return an Expression of Interest form (NSP 2). This will be processed as normal up to the point of scheduling a provisional flock visit for blood sampling. *However, we will only be able to proceed with blood sampling once restrictions have been lifted from your area.*

What should I do if I am interested?

The first stage is to complete and return the enclosed Expression of Interest (NSP 2) form. If you have more than one purebred pedigree breeding flock, a separate form should be completed for each flock.

When will genotype testing begin?

Once you have returned form (NSP 2) and your details are logged, you will be sent a pre-printed application form immediately before testing begins later this year.

If you think you are eligible or may be interested in participating in the NSP Ram Genotyping Scheme, we would urge you to register your interest without delay.

Thank you for taking the time to read this leaflet.