## Document History

### Last Modified

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<tr>
<th>Version</th>
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<th>Date</th>
<th>Author</th>
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<tbody>
<tr>
<td>1.0</td>
<td></td>
<td>June 2018</td>
<td>Philip Breslin</td>
</tr>
</tbody>
</table>
1 Background

There is no statutory surveillance programme for TB in goats. However Tuberculosis in goats is a notifiable disease (Animal Health and Welfare Act 2013 and Notification and Control of Diseases Affecting Terrestrial Animals (no.2) regulations 2016). TB testing of goats may be required for the following reasons;

i. Under Regulation (EC) No 853/2004, a goat herd supplying milk must have a TB control plan in place. The TB control plans are submitted by PVPs to the Milk Hygiene Division in DAFM. Milk Hygiene Division then request the relevant DVO to approve the plan. The plan is subject to re-submission every 3 to 5 years. The PVP must confirm to Milk Hygiene Division annually that the control plan has been implemented in full and whether the herd remains TB free.

The PVP guidelines for the TB control plan ER136 (Annex 1 and available on Ezone on Non AHCS forms) are contained within the control plan form itself. See section below dealing with approval of control plans.

ii. As part of an epidemiological investigation into, or as part of controlling, a bovine TB breakdown or an area TB problem it may be desirable to test goats for TB on the directions of a veterinary inspector.

iii. On foot of laboratory findings indicative of caprine TB on the directions of a veterinary inspector.
2  General Rules

i.  Only a Veterinary Inspector or a WTVI / PVP that is approved and has a current signed ER4 or contract with DAFM is permitted to test goats.

ii.  Goats must be tested in accordance with the procedures set out in Annex 2 - Instructions regarding TB Testing Goats. This outlines procedures to be followed including recording, performing, interpretation and reporting of the test.

iii. Prior permission is not required for tests relating to a raw milk supplier TB control plan or for private tests.

iv.  If TB has been confirmed in a goat herd tests must only be performed on goats in that herd on the direction of the RVO.

v.  A PVP or WTVI is obliged to notify the RVO if there are any inconclusive or positive reactors to the TB skin test. A PVP/ WTVI must send a certified report to the RVO when there are positive or inconclusive reactors on a test or when another test has been completed at the direction of the RVO.

vi.  A PVP or WTVI must give the keeper of the goats a copy of the results of a TB test.
3 Direction to Test

A notice under section 42 of the Animal Health and Welfare Act may be used to restrict as appropriate and to require testing or slaughter/destruction as part of a control plan. The RVO must direct testing in the following circumstances.

i. Where inconclusive reactors have been disclosed. An inconclusive retest must be performed on the inconclusive reactors.

ii. Where suspicion of TB on clinical grounds is notified a full herd test must be completed.

iii. Where TB is confirmed at post mortem a full herd test must be completed.

iv. Where TB is confirmed on a part herd / private test the remainder of the herd must be tested.

v. Where tracing or another epidemiological link that warrants testing is identified by a VI.

vi. Where goats are co-housed or co-grazed with a bovine herd where there is a high risk TB breakdown.

Where TB is confirmed on a herd test subsequent testing must take place at 60 day intervals (post removal of infected animal) and the herd must remain restricted until the herd has passed 2 consecutive tests.
4 Bovine and Caprine TB

i. When TB breakdowns have been confirmed in co-located bovine and caprine herds testing must be completed contemporaneously. The 60 day interval for determining the OTF status of the bovine herd and the 60 day interval for disposition of the goat herds status will begin following removal of the most recent reactors for either species.

ii. When TB is confirmed in a goat herd co-located bovine herds and contiguous bovine herds must be TB tested.

5 Interpretation

i. Standard interpretation is used for:

a. Herds with no recent history of TB
b. Herds with no evidence of infection at the Post Mortem Examination (PME)/Post Mortem Inspection (PMI) of recently disclosed reactors.
c. Herd where TB is clinically suspected and notified.
d. Inconclusive Reactor (IR) retests.

ii. Severe Interpretation is used for:

a. Herds where TB has been confirmed in a herd.
b. Herds where an authorised officer believes that the epidemiological situation warrants use of severe interpretation.
6  **Slaughter/Destruction**

i. Slaughter or destruction of clinically suspected may be directed by an authorised officer using a AHWA notice.

ii. There is no compensation payable for TB reactor goats.

7  **Tracing**

i. Inward and outward tracing of goats must be completed and associated caprine and bovine herds tested as appropriate.

8  **Approval of TB Control Plans**

Goat herds supplying milk must submit a TB control plan to Dairy Hygiene Section every 3 to 5 years. This must be approved by an RVO VI. Important issues that must be verified when approving these plans include;

i. The presence of a bovine herd on the same holding. Having a separate herd number is not synonymous with being on a separate holding because the keepers could differ. Goat herds on the same holding as cattle herds must test at the same frequency as the cattle herds. This must be verified before approving a new TB control plan.

ii. The results of RVL or abattoir post mortem examination of goats have been outlined within the plan.

iii. A biennial TB test using an appropriate sample size is required for certain flocks. The PVP responsible for the plan must justify the proposed sample
plan. If they use an online epidemiological tool this should be appended to the plan and must at a minimum demonstrate freedom from disease at 5% prevalence, 95% confidence with a test sensitivity of 90%. Failing such justification a minimum of 60 goats or 50% of the adult flock must be tested.

9  **Forms and Letters Download**


10  **Legislation**

i. **Animal Health and Welfare Act 2013, No. 15 of 2013.**
Tuberculosis in Ruminants is a notifiable disease (Schedule 2).

Section 42 – Animal Health and Welfare Notice - sets out powers of authorised officers including power to require:

a. Restriction on movement of animals
b. Testing of animals
c. Destruction, slaughter and disposal of animals

ii. **Notification and Control of Diseases affecting Terrestrial Animals (No.2) Regulations 2016 [SI 130 of 2016](http://ezone/intranet/businessareas/eraddivision/formsandtemplates/non-ahcsforms/) as amended by Notification and Control of Diseases affecting Terrestrial Animals (No. 2) Regulations 2016 (Amendment) Regulations 2017 [SI 408 of 2017](http://ezone/intranet/businessareas/eraddivision/formsandtemplates/non-ahcsforms/) Under these Regulations Tuberculosis in Ruminants is a notifiable disease.

Provisions
a. Regulation 3 – Notification of disease
b. Regulation 4 – Restriction on movement – automatic standstill for 7 days
c. Regulation 5 – Restriction Notice
d. Regulation 6 – Control Plan – include testing etc.
Annex 1: ER 136 TB Control Plan

FOR MILKING GOATS / SHEEP / OR OTHER NON-BOVINE SPECIES

(Regulation (EC) 853/2004 laying down specific rules for food of animal origin)

The Control Plan is to be established between the applicant Food Business Operator (milk producer) and a Private Veterinary Practitioner,

THE VETERINARY PRACTITIONER SHOULD REPORT, ON AN ANNUAL BASIS, THAT THE CONTROL PLAN HAS BEEN FULFILLED AND THAT THE HERD/FLOCK IS OR IS NOT TB FREE AS APPROPRIATE.

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Address (Include Eircode)</td>
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<tr>
<td>Phone No.</td>
<td>Mobile No</td>
</tr>
<tr>
<td>Herdnumber/Flocknumber</td>
<td></td>
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<tr>
<td>E-Mail Address: -</td>
<td></td>
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<tr>
<td>Name &amp; address of Private Veterinary Practitioner (PVP)</td>
<td></td>
</tr>
<tr>
<td>Phone No.</td>
<td>Mobile No</td>
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</tbody>
</table>

STOCK NUMBERS

| Total no. of goats/sheep/other non-bovine species |  |
| Specify species if ‘Other’ |  |
| Total no. of milking goats/sheep/other non-bovine species |  |
| Total no of milking goats/sheep/other tested |  |
| Year of Baseline TB test in goat flock |  |
| Number of cattle on holding (if applicable) |  |

If there are cattle on the holding all goats must be tested at the same frequency as the cattle.

HUSBANDRY METHOD

Are all goats/sheep/other non-bovine species/kept indoors? Please insert Yes or No:
If ‘No’ please indicate below how many are in and/or out and for how long:

<table>
<thead>
<tr>
<th>Details of plan to be outlined by the Private Veterinary Practitioner below:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The TB Control Plan should be established on a risk basis depending on the husbandry type. Please see guidelines attached. This must be submitted in Print.</td>
</tr>
</tbody>
</table>

| Number of goats/sheep/other non-bovine species kept indoors |
| Number of months goats/sheep/other non-bovine species kept indoors |
| Number of goats/sheep/other non-bovine species kept outdoors |
| Number of months goats/sheep/other non-bovine species kept outdoors |

Signature of herd/flock Owner/Keeper:

Date:

Signature of Veterinary Practitioner:

Stamp of Veterinary Practitioner:

Date:

Submit to:
Milk Hygiene Division, Grattan House, Grattan Business Centre, Portlaoise, Co. Laois, R32 KW50

For information on data protection please see the following: https://www.agriculture.gov.ie/dataprotection/. The Data Protection Officer can be contacted at dataprotectionofficer@agriculture.gov.ie or, Data Protection Officer, Data Protection Unit, Department of Agriculture, Food and the Marine, Grattan Business Park, Dublin Road, Portlaoise, Co Laois R32 K857.
GUIDELINES

Risk Based TB Control Plan for milking goats/sheep/other non-bovine species producing milk/milk products for human consumption:

- Outline the risks pertaining to the flock including whether the milk is destined for pasteurisation.
- Outline the results of previous abattoir and post-mortem results as required below
- A baseline TB test of all adult/yearlings is required to establish the herd/flock status.

The subsequent TB test frequency and surveillance of TB status should be such that a TB problem arising in the herd/flock shall become evident at the earliest possible stage and are dependant upon husbandry type as follows:

1. Goats that are kept on the same holding as cattle must be TB tested at the same frequency as the cattle.

2. The TB status of any animals that are bought in should be established prior to purchase or should be kept separate from the herd/flock until tested.

3. Any milking/adult animals showing chronic ill-thrift must be culled and sent for post-mortem at a Regional Veterinary Laboratory.

4. Testing Requirements
   
   A. For herds/flocks kept outdoors:
      All animals should be tested annually

   B. For herds / flocks kept indoors at all times:

      ▪ A biennial herd-level TB test is required using an appropriate sample size for demonstration of freedom from disease should be used and justified. Justification may include reference to one of the many online epidemiology tools which may be printed and attached to the plan.

      ▪ Culled animals, (not newborns) must be submitted, by prior arrangement, to an abattoir, approved for that species, or to a Regional Veterinary Laboratory for TB surveillance at post mortem.

   C. For herds / flocks kept indoors at all times, but whose young replacements (e.g. kids/lambs) are kept separately outdoors during the grazing season:

      ▪ The requirements in B (above) apply

      AND

      ▪ Herd/flock replacements should be TB tested before their inclusion to the milking herd/flock.
Annex 2: Instructions regarding TB testing Goats

Who can TB test goats

i. Apart from Veterinary Inspectors only a WTVI / PVP that is approved and has a current signed ER4 or contract with DAFM is permitted to test goats. Goats must be tested in accordance with the procedures set out in this document.

ii. The test must be performed on both days by the same person.

Is Permission Needed Prior to Testing

iii. There is no statutory programme of surveillance testing for TB in goats in Ireland.

iv. If the herd is being tested as part of a TB control plan required by herds where raw milk is being sold off farm no permission is needed.

v. If the herd keeper requires a private test to fulfil a trade transaction no permission from the Regional Veterinary Office is required. Keepers must be made aware of possible trade restrictions, slaughter and necessity for further testing in the event of reactor animals.

vi. Goats must not be tested within 42 days of a previous TB test and must not be tested within 60 days of prior positive goats having left the farm for slaughter or post mortem examination.

vii. If there is any suspicion of TB infection in the goats the Regional Veterinary Office must be notified. TB in goats is a notifiable disease. The Veterinary Office will advise prior to any testing in a situation where TB is suspected.

How are Goats TB Tested

viii. Equipment
The equipment requirements for TB testing goats are the same as that detailed in the ER4 or TB testing contract for bovine TB testing.
ix. Tuberculin
Paired batches of tuberculin (from the same box) must be used as is the case for bovine TB testing.

x. Biosecurity
Biosecurity protocols must be followed as is the case for bovine TB testing as outlined in the ER4 or TB testing contract for bovine TB testing.

xi. Identification of Animals
All goats that are TB tested must be tagged in compliance with the National Goat Identification System (NGIS). The tag numbers must be recorded by the testing Veterinary Practitioner.

http://www.agriculture.gov.ie/animalhealthwelfare/animalidentificationmovement/nationalgoatidentificationsystem/

xii. Testing Technique
Day 1

a) Tuberculin testing of goats is by the Single Intradermal Comparative Cervical Tuberculin (SICTT) Test, using the same method as to test small calves, i.e. by injecting avian tuberculin in the middle of the left side of the neck and bovine tuberculin on the right side.

b) The goats NGIS identification must be recorded.

c) The injection sites must be clearly clipped.

d) At the clipped site a fold of skin must be measured to the nearest millimetre.

e) The clipped site is injected intradermally. The syringe is returned to the holster for sterilisation in surgical spirit.

f) A pea-like nodule is palpated at the injection site to confirm successful technique. If the nodule is not present re-clip, measure and inject at a site approximately 7 cm away on the same side of the neck and record as appropriate.
Day 2

a) Read the skin test at 72 (=/- 4) hrs using the same calipers.

b) Record the skin thickness. Record the character of any swelling, particularly if there is oedema.

c) Record any skin thickness increases which show an increase of more than 2mm as positive reactions, as must any oedematous swelling. The test interpretation is dependent on the comparative reactions (both character and size) to the avian and bovine tuberculins as outlined below.

d) Use the following abbreviations in records
   • C = Circumscribed - a discrete non-oedematous reaction
   • O = Oedema - any reaction where oedema is present
   • + = Positive i.e. an increase of more than 2mm in skin thickness or any reaction with oedema
   • - = Negative i.e. an increase of 2mm or less in skin thickness with no oedema.

e) STANDARD INTERPRETATION

TB tests in Goats will use standard interpretation unless otherwise directed by the RVO. However, once there is confirmation of a reactor severe interpretation is then used.

<table>
<thead>
<tr>
<th>Reaction</th>
<th>Result at Standard Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Animals with a negative bovine reaction and a positive or negative avian reaction.</td>
<td>Pass</td>
</tr>
<tr>
<td>2. Animals with a positive bovine reaction equal to or less than the avian reaction.</td>
<td></td>
</tr>
<tr>
<td>Animals with a positive bovine reaction between 1mm and 4mm greater than the avian reaction.</td>
<td>Inconclusive Reactor</td>
</tr>
</tbody>
</table>
1. Animals with a positive bovine reaction more than 4mm greater than the avian reaction.
2. Any of the following clinical signs; diffuse or extensive oedema, exudation, necrosis, pain or inflammation of the lymphatic ducts in that region or of the lymph nodes.

<table>
<thead>
<tr>
<th>Reactor</th>
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<tbody>
<tr>
<td>f) SEVERE INTERPRETATION</td>
</tr>
<tr>
<td>Severe Interpretation is used as directed by the RVO or after a reactor has been discovered at a test with standard interpretation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reaction</th>
<th>Result at Severe Interpretation</th>
</tr>
</thead>
</table>
| 1. Animals with a negative bovine reaction and a positive or negative avian reaction.  
2. Animals with a positive bovine reaction equal to or less than the avian reaction. | Pass |
| 1. Animals with a positive bovine reaction more than 1mm greater than the avian reaction.  
2. Any of the following clinical signs; diffuse or extensive oedema, exudation, necrosis, pain or inflammation of the lymphatic ducts in that region or of the lymph nodes. | Reactor |

**Medicine Administration**

xiii. Unless treatment is required for welfare or disease reasons, Veterinary Practitioners must discourage the keeper from administering medicines to the animals being tested until the result of the test has been read and confirmed as clear at 72 hours. Administration of drugs may interfere with the response to the test. If drugs have been administered, it must be noted in the test reports.
Recording and Reporting

xiv. When a test is a private test or a test conducted as part of a TB control plan for the purposes of supplying raw milk there is no requirement to report a clear test to DAFM. However, if the test is as a result of a DAFM request to test or subsequent testing following diagnosis of TB certified test reports must be submitted to the RVO within 5 working days.

xv. Any test with a positive or inconclusive reactor must be reported to DAFM.

xvi. When the test is not required to be reported to DAFM a copy of the test results should be given to the herd keeper to facilitate verification of TB status by DAFM.

xvii. Testing records must be retained for 5 years.

Requirements when there are Reactor animals

xviii. The Keeper must be advised that the herd is subject to being restricted.

xix. The keeper must be advised to separate and isolate any reactor goats. Milk from reactor goats must be discarded.

xx. The keeper must be advised that TB is a zoonosis and appropriate precautions must be taken when handling the animals.

xxi. The RVO must be telephoned to advise them of a positive result. A full certified TB test report must be submitted to the RVO without delay. This must consist of an emailed copy of the report being submitted to the RVO as soon as is practicable followed by a signed copy of the report by post.

xxii. A positive result must be notified to the Dairy Produce Inspector supervising the Food Business Operator to which the herd is supplying milk, in the same way as with Bovine Herds. The list of Food Business Operators, and the supervisory Inspection Staff is available in the shared folder at G:\ERAD Reports\FBO contacts register. If there are any queries regarding the
Inspector to be notified, please contact Joan McDougall, HEO, Dairy Hygiene Section at 057 8694355.