Management of residues following plague locust control - common questions

6 September 2010
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1. **What is a Harvest Withholding Period?**

   A harvest withholding period is the time that must elapse between application of a pesticide and harvest, or cutting (windrowing) for harvest, of grain or seed crops.

2. **What is a Grazing Withholding Period?**

   A grazing withholding period usually says “DO NOT graze or cut for stock food”. It is the time that must elapse between application of a pesticide and grazing. If a separate 'cutting for stock food' withholding period is not established the grazing withholding period also applies to cutting or windrowing for animal feed.

3. **What is a Livestock Withholding Period?**

   Some pesticide labels include a livestock withholding period which usually says “DO NOT slaughter for …”. It allows continued grazing of a treated area immediately after spraying as an alternative to observation of a grazing withholding period, providing livestock are slaughtered only after a set time – the livestock withholding period - from pesticide application.

4. **Why do I need to observe a Withholding Period?**

   Failure to observe withholding periods may result in unacceptable residues in your produce, possibly breaching legal standards or Maximum Residue Limits (MRLs), making it unsaleable. Pesticide residue levels are monitored in Australian produce. If residues in excess of allowable standards\(^1\) are detected in your produce in Australia or overseas it can seriously damage markets for your product and for other Australian produce.

   Further, the withholding period is a legally enforceable label requirement and failure to observe withholding periods is an offence under state control-of-use legislation. You usually need to declare that you have observed withholding periods when you sell produce or livestock, such as on the Livestock Production Assurance (LPA) \(^2\) or on the Grain Trade Australia (GTA) Grain Commodity Vendor Declaration\(^3\).

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\(^3\)http://www.graintrade.org.au/contracts
5. Where can I find the Withholding Period?

Withholding periods are found on the product label\(^4\) or APVMA permit\(^5\). Withholding periods mentioned in other documentation, including that on the APVMA website, do not take precedence over the withholding periods stated on the approved label or on any current APVMA permit for the use.

6. How does the Withholding Period apply to windrowing?

The harvest withholding period must be observed prior to windrowing for grain production. The harvest withholding period applies to windrowed crops at the time that the crop is cut, and does not include the time between windrowing and harvesting of the windrowed crop.

The grazing withholding period must elapse before windrowing for hay production.

7. How does the Withholding Period apply to hay or silage production?

The grazing withholding period must elapse before windrowing or cutting for hay or silage production.

8. How do Withholding Periods relate to Export Intervals for management of livestock?

Withholding periods are established to ensure compliance with Australian Maximum Residue Limits. Some export markets apply different standards. For some pesticide products Export Intervals have been established to manage compliance with those standards. The Export Intervals only apply to the management of livestock that may be sent for export slaughter – that is to an abattoir that is registered for slaughter of livestock for the export of meat and meat products. The export intervals apply to all livestock slaughtered at these export abattoirs, even if they have been sold for supply of meat to the domestic market. For dairy products, the label withholding periods still apply.

9. The SAFEMEAT Plague Locust Brochure\(^6\) and the Plague Locust Control Fact Sheet\(^7\) talk about Export Intervals. What are these intervals and how do I apply them in plague locust control?

Most pesticides used for plague locust control have Export Slaughter Intervals (ESIs) and Export Grazing Intervals (EGIs) set. The ESI and EGI are recommended to provide flexibility in managing residues in livestock. The Export Animal Feed Interval (EAFI), which is a variation of the grazing withholding period, has not been set for all pesticides used in plague locust control. The Export Intervals listed on the SAFEMEAT plague locust brochure only apply to the use of those pesticides for plague locust control.

The following export intervals are discussed in the plague locust brochure and fact sheet:

- The *Export Slaughter Interval* (ESI) allows management of residues by placing livestock on clean feed and ESIs for plague locust control are stated as: Livestock that have been grazing on or fed treated crops and/or

\(^4\)http://www.apvma.gov.au/pubcris
\(^7\)http://www.grdc.com.au/locusts
oversprayed should be placed on clean feed for x days - the ESI - prior to export slaughter.

- The Export Grazing Interval (EGI) allows management of residues while retaining livestock on treated pasture and EGIs for plague locust control are stated as: Livestock that have been grazing on treated crops/pastures and/or oversprayed should not be sold for export slaughter for x days - the EGI - after application of the chemical product, unless the Export Slaughter Interval has been observed.

- The Export Animal Feed Interval (EAFI) is the minimum period that must elapse between the application of a chemical and grazing or harvesting the crop/pasture for animal feed. The EAFI is the least preferred option for residue management owing to the variability in residue decline following treatment of mature or near mature pastures and forages (see 12 below).

10. What does this mean in practice?

Always observe the harvest withholding period.

If cutting for stockfeed,

(1) Observe the grazing/cutting withholding period.

(2) Do not feed the material to livestock that may be sent for export slaughter; or

(3) If feeding to livestock that may be sent for export slaughter, ensure these animals are not sent for slaughter until they have spent a period, the export slaughter interval (ESI), on “clean” feed (feed that has not been harvested from a crop treated with the pesticide).

(4) If an Export Animal Feed Interval (EAFI) has been set, observe the EAFI before harvesting/cutting for stockfeed.

When grazing treated areas:

(1) Observe the longer of the grazing withholding period and EAFI (do not graze until the grazing withholding period and EAFI have elapsed); or

(2) If the livestock withholding period is observed, or if livestock are over-sprayed (present in the field at the time of spraying), animals may continue to graze the treated crop/pasture but ensure they are not sent for export slaughter until the Export Grazing Interval (EGI) has expired; or

(3) If livestock are over-sprayed and are removed from the treated crop/pasture before the EGI expires, the livestock should be placed on clean feed for the remainder of the EGI period prior to export slaughter.

See the table below for additional details.
Export Interval summary table

<table>
<thead>
<tr>
<th>Pasture / forage</th>
<th>Crop / fodder / silage - cut for feeding to animals</th>
<th>Pasture / forage being grazed when sprayed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe EAFI (do not graze)</td>
<td>Observe EAFI (do not cut/harvest/windrow)</td>
<td>Observe EGI</td>
</tr>
<tr>
<td>If need to graze sooner:</td>
<td>If need to harvest and feed sooner:</td>
<td>OR if no EGI</td>
</tr>
<tr>
<td>Observe EGI</td>
<td>After feeding stock on hay/silage produced from treated crop/pasture, remove them to</td>
<td>Remove stock to clean pasture/feed AND</td>
</tr>
<tr>
<td>OR if no EGI</td>
<td>clean pasture/feed AND</td>
<td>Observe ESI</td>
</tr>
<tr>
<td>After grazing remove stock to clean pasture/feed AND</td>
<td>Observe ESI</td>
<td>May be freely grazed once EGI has expired.</td>
</tr>
<tr>
<td>Observe ESI</td>
<td><em>May be freely grazed once EAFI has expired.</em></td>
<td></td>
</tr>
<tr>
<td>Note: fodder/silage cut and stored before the EAFI</td>
<td></td>
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<tr>
<td>can continue to be contaminated for long periods in</td>
<td></td>
<td></td>
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<td>storage and the ESI should be observed if it is later</td>
<td></td>
<td></td>
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<tr>
<td>used/fed.</td>
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<td></td>
</tr>
</tbody>
</table>

Products which may legally be used on a pasture/crop but for which there are no published export intervals should not be used if stock are involved.

<table>
<thead>
<tr>
<th>EAFI</th>
<th>Export animal feed interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGI</td>
<td>Export grazing interval</td>
</tr>
<tr>
<td>ESI</td>
<td>Export slaughter interval</td>
</tr>
</tbody>
</table>
11. So, if I use fenitrothion on pasture, how do I need to manage my 
pasture and livestock so my animals are eligible for export slaughter? 
Fenitrothion has the following withholding periods and export intervals:

**Withholding periods:**
Where stock have been not been oversprayed:
- Grazing withholding period: 7 days
- Livestock withholding period: 14 days
- Cutting for stockfeed withholding period: 14 days

Where stock have been oversprayed:
- Livestock withholding period: 14 days

**Export Intervals:**
- Export Animal Feed Interval (EAFI): 14 days
- Export Slaughter Interval (ESI): EGI applies
- Export Grazing Interval (EGI): 14 days

(1) If cutting for stock feed, observe the EAFI of 14 days.

(2) If grazing, and livestock have not been oversprayed:
   a) Observe the EAFI of 14 days; or
   b) Place the stock on the treated pasture and observe the EGI of 14 days.

If livestock have been oversprayed, observe the EGI of 14 days.

12. Do these intervals still apply if the pesticide was applied to dry pasture 
or fodder?
Pesticides may persist in dry pasture or fodder and in cut hay/fodder. If pesticides are 
applied to dry pasture, or pasture that is drying off, the pasture must be regarded as 
contaminated until substantial regrowth has occurred (i.e. following good rains or the 
Autumn break). Livestock grazing or receiving contaminated feed must be managed in 
accordance with the pesticide label or permit, and in particular the ESI must be 
oberved.

**Further Information**
Further information can be obtained from pesticide labels4, APVMA permits5, the 
GRDC Plague Locust Control Fact Sheet7 and the SAFEMEAT Plague Locust 
Brochure8