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Purpose of this document

This reference outlines how to use PEMS to record vapour heat treatment (VHT) records.

**Note:** An overview of PEMS and general functions can be found in the Reference: *Plant Exports Management System (PEMS) Authorised Officer User Guide – Overview and general functions*.

Setting up establishment sensors

Prior to completing a VHT sensor calibration in PEMS, the sensors that are being used by the establishment will need to be set up, if they have not already been entered into the system. This will only need to be done the first time, or if a sensor is changed in the future.

If the sensors have already been set up, you can progress straight to commencing the VHT Sensor Calibration.

To set up the establishment sensors, click the **Home** menu tab and then click the **Settings** icon.

![PEMS Interface](image.png)

1. Click the **Home** menu tab.
2. Click the **Settings** icon.

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This is a CONTROLLED document. Any documents appearing in paper form are not controlled and should be checked against the IML version prior to use.
The *Administration* window will display.

Select **Establishment Sensors**.  

The *Search Establishments* window will display.

Enter the **Establishment number** and click **Search**.  

*Image of the Administration window with Establishment Sensors selected.*

*Image of the Search Establishments window with Establishment number entered and Search button clicked.*
The *Vapour Heat Treatment Establishment* window will display.

To add a sensor, click **Add**.

If no sensors have previously been added for the establishment, the Establishment Sensors field will appear blank.
The Sensor Details window will display.

Enter the Sensor Number\(^1\), select Yes\(^2\) for ‘Is Active’ and the select Save\(^3\).

! No would only be selected when the sensor is no longer working.

The sensor will now appear in the Establishment Sensors list. Repeat this process to add each sensor. Once all the sensors have been added you can proceed to the VHT Sensor Calibration step.

! The sensors that are added will not show a “Calibration used by date” until they have been calibrated and ready to use.
VHT Sensor Calibration

To calibrate the VHT sensors, click the Home\(^1\) PEMS menu tab and then click the VHT Sensor Calibration\(^2\) tile.
The Vapour Heat Treatment Sensor Calibration window will appear.

Tick the checkbox if the Reference Thermometer is NATA Accredited certified within the last 3 years\(^1\). Enter the Accredited date\(^2\).

Enter the Establishment Number\(^3\) and click Search\(^4\). The Establishment Name\(^5\) will appear.

Click Create\(^6\).

If the Accredited date is not within the last 3 years, you will not be able to proceed.
The VHT Sensor Calibration window will display.

Beside the Calibration Details, select **Change**\(^1\).

The Calibration Details window will display.

The Calibration date\(^1\) will automatically populate with today's date, if required change the calibration date, and enter the Calibration Time\(^2\), which is the time you commence the calibration process, then select **Save**\(^3\).
To add the sensors that are being calibrated, select **Add**.
The Add Sensor window will display.

Start entering the Sensor Number and the predictive text of listed sensor numbers will appear, click on the sensor and select Add.

This step can be done multiple times to add all sensors.

Once all sensors are added click Save.
All sensors will appear in the **To be calibrated** section.

To record a reading select **Open**.

![Image of sensor calibration page](image-url)
The *Reading 1* window will display. All added sensors will be displayed. There is the option to **Pass all** or **Fail all** sensors. Or you can individually select the result for each sensor. Then click **Save**.

Repeat this step for Reading 2 and 3 windows.

![Diagram showing sensor options and save button]

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*The computer printout of the probe calibration and MIG thermometer NATA test certificate needs to be attached in the communication tab. Details on the Communications tabs can be found in Section 3: General PEMS functions, Reference: PEMS AO user guide – Overview and General Functions.*
The calibration readings will be updated to be listed as Passed sensors\(^1\) or Failed sensors\(^2\).

If any sensors are listed in the Failed Sensors column\(^2\) they cannot be used.
The calibration can only be submitted in PEMS after:

- all results and data are recorded appropriately
- a **Time Entry** is provided for all AOs who recorded the sensor calibration results
- if applicable, attachments and correspondence relating to the sensor calibration are recorded under the **Communications** tab.

Details on the Time Entry and Communications tabs can be found in **Section 3: General PEMS functions**, Reference: *PEMS AO user guide – Overview and General Functions*.

When you are ready to submit, click the **Actions** tab and then click **Submit**.

For more information on **Cancelling** or **Withdrawing**, see **Section 3.6: Actions tab**, Reference: *PEMS AO user guide – Overview and General Functions*.
A pop-up window will ask if you want to **email the exporter/EDI user on the submission of the inspection**. When selecting this option, the email address box will expand.

Enter the **email address**, this can be multiple email addresses each separated by a comma.

Enter in any **Comments** that are to be included in the email.

Click **Approve**.

A pop-up window will ask you to confirm that you want to **submit this calibration**.

Are you sure you want to submit this calibration?

[OK] [Cancel]
The VHT Sensor Calibration record status will display as **Completed**.

You can then commence the VHT treatment and supervision.
Supervision of VHT

Click the **Home** tile in the PEMS menu tab and then click the **Supervision of VHT** tile.
The *Vapour Heat Treatment Calibration* window appears.

Enter the **Batch number**¹, select the appropriate **Treatment Schedule**² from the list in the dropdown.

**Note:** When the Treatment Schedule of 46 degrees Celsius is selected it will automatically populate with China as the Country. Currently China is the only country that uses this schedule.

If applicable, enter the **Country**³. Enter the **Establishment Number**⁴ and click **Search**⁵.

Start entering the **Sensor Number**⁶ and the predictive text of listed sensor numbers will appear, click on the sensor and select **Add**⁷. This step can be done multiple times to add all sensors.

Once all information and sensors are entered select **Create**⁸.
The *Supervision of VHT* window will display.

Add additional countries to the supervision by selecting **Add**.

Adding Country

The *Add Treatment* window will display.

From the **Country** dropdown select the relevant country and select **Save**.

![Supervision of VHT window](image1)

![Add Treatment window](image2)
Adding Sensors

To add or remove sensors select **Sensor Details**.
The Add Sensor window will display. To add sensors, enter the **Sensor Number** and click **Add**.

To remove the sensors, click **Remove**.

Once completed, select **Save**.
Adding Accredited information

In the Treatment Details, to add accredited property information, select Open¹.
The *Add Treatment* window will display.

Enter the **Accredited Farm Block Number**¹ and click **Add**². This will validate the Farm Block Number. For each new number, multiple block numbers can be added by clicking the **Add** button.

Enter the **Accredited Packhouse Number**³ and click **Add**⁴. This will validate the packhouse number. For each new number, multiple packhouses can be added by clicking the **Add** button.

Click **Save**⁵.

₁ PEMS will show an error if the nominated accredited property is not valid, and you will not be able to proceed.
Recording the Loading details

To record the Loading details, click Open¹.
The **Loading Details** window will display.

Enter the **Seal No. for the exit of the chamber**\(^1\), add the **Date on the exit chamber seal**\(^2\) by selecting the date from the pop-up **calendar**\(^3\) and then enter the **Time on the exit chamber seal**\(^4\).

Enter the **Seal No. for the entrance of the chamber**\(^5\), the **Date on the entrance chamber seal**\(^6\) by selecting the date from the pop-up **calendar**\(^7\) and then enter the **Time on the entrance chamber seal**\(^8\).

Tick the checkbox if **The sensors are placed as per the treatment facility document sensor placement plan**\(^9\).

Enter the **Number of bins in the chamber**\(^10\).

Enter the **Treatment Start date**\(^11\) by selecting the date from the pop-up **calendar**\(^12\) and then enter the **Treatment Start Time**\(^13\).

Select **Save**\(^14\).
Outcome details

To record the Outcome details, click Open¹.
The **Outcome Details** window will display *(image below)*.

There are several checkboxes that need to be confirmed by ticking each of the **checkboxes**.

Enter the **Treatment Temperature Reading**, the **Treatment Duration**, the **Relative Humidity**.

Select the **Outcome** from the dropdown box, either Passed or Failed.

Enter the **Treatment End Date** by selecting the date from the pop up **calendar** then enter the **Treatment End Time**.

Then click **Save**.

! The format for the Temperature and Humidity must be recorded to one decimal place, for example 91.0.
Outcome Details

- Temperature of all sensors have reached and maintained the prescribed treatment temperature for the nominated treatment schedule *
  - This checkbox is a required field.
- Humidity level has been reached and maintained at nominated schedule for prescribed temperature before treatment commencement *
  - This checkbox is a required field.
- Has the treatment process lasted at least for two hours *
  - This checkbox is a required field.
- Exit seal number matches to the Loading details *
  - This checkbox is a required field.
- Entrance seal number matches to the Loading details *
  - This checkbox is a required field.

Treatment Temperature Reading *

Treatment Duration (HH:MM) *

Relative Humidity *

Outcome *

Treatment End Date

Treatment End Time

Treatment VHT end date is required

Treatment VHT end time is required

Save
Submitting the calibration

The calibration can only be submitted in PEMS after:

- all results and data are recorded appropriately
- a Time Entry\(^4\) is provided for all AOs who recorded calibration results
- The VHT Readings data log must be attached and any other correspondence relating to the calibration are recorded under the Communications\(^2\) tab.

Details on the Time Entry and Communications tabs can be found in Section 3: General PEMS functions, Reference: PEMS AO user guide – Overview and General Functions.

When you are ready to submit, click the Actions\(^3\) tab and then click Submit\(^4\).

For more information on Cancelling or Withdrawing\(^5\), see Section 3.6 Actions tab, Reference: PEMS AO user guide – Overview and General Functions.

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! The Time Entry recorded is from the start of the calibration activity until the end, it is not just the final 15 minutes.

! PEMS will validate the batch number and transfer those details to the subsequent horticulture inspection when it is completed.
A pop-up window will ask if you want to email the exporter/EDI user on the submission of the inspection. When selecting this option, the email address box will expand.

Enter the email address, this can be multiple email addresses each separated by a comma.

Enter in any Comments that are to be included in the email.

Click Approve.

A pop-up window will ask you to confirm that you want to submit this calibration. Click OK.

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The **Supervision of VHT** record status will display as **Completed**.

![Supervision of VHT](image)

The calibration has been submitted.

### Treatment details

<table>
<thead>
<tr>
<th>Batch number</th>
<th>Establishment name</th>
<th>Country</th>
<th>Farm block no.</th>
<th>Packhouse no.</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch121021</td>
<td>EXPORT COMPANY PTY LTD</td>
<td>KOREA, REPUBLIC OF OF</td>
<td>ME1-1</td>
<td>MP59</td>
<td>Open</td>
</tr>
</tbody>
</table>

### Loading details

### Outcome details
Horticulture Inspection Record and VHT in PEMS

This section refers to the VHT requirements connected to the initiating and completing a Horticulture inspection in PEMS.

General details on how to complete a Horticulture inspection can be found in the Reference: PEMS AO user guide – Horticulture Inspections.

Once you have initiated the inspection via the normal process you will need to enter some additional information as the process for recording inspection results slightly changes when the commodity has undergone the VHT process.

Click the Inspection¹ tab. From the Results line, select Open².

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¹ Inspection
² Open
The *Inspection Result Line* window will display (image below).

For each line inspected, the system will display the mandatory fields for the inspection:

- Enter the **Accredited Farm Block Number** and click **Add**. This will validate the Farm Block Number. For each new number, multiple block numbers can be added by clicking the Add button.

- Enter the **Accredited Packhouse Number** and click **Add**. This will validate the packhouse number. For each new number, multiple packhouses can be added by clicking the Add button.

- If applicable, select **Has the VHT been done using a manual record**. If this option is selected it becomes mandatory to attach the manual record to the communications tab before submitting the inspection. A manual VHT record should only be used if the appropriate Exception has been granted.

- Enter the **Batch Number** and click **Add**. This will validate the batch number. For each new number, multiple batch numbers can be added by clicking the Add button.

- If applicable, enter the source of the product into the **Line ID**, such as grower line and/or lot number.

- Enter the **Number of packages** presented for inspection if the information is not prepopulated (where split line is used, you will need to amend the number of packages specified in the parent RFP line).

- Enter the **Sampled number** of units during the inspection (sampled number must be entered before a result can be selected).

- Select a **Result** of either ‘Pass’ or ‘Fail’ for the line.

- If applicable, select one or more **Remarks** checkboxes (mandatory if the line fails the inspection).

- Select the checkbox(es) of all **Authorised officers** who inspected the line. See **Section 3.1 Assigning authorised officers (inspection records only)** Reference: *PEMS AO user guide – Overview and General Functions* for more information.

- Click **Save** to save the inspection record and exit the Inspection Result Line window.
<table>
<thead>
<tr>
<th>No.</th>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accredited Farm Block Number</td>
<td>Add</td>
</tr>
<tr>
<td>2</td>
<td>Accredited packhouse number</td>
<td>Add</td>
</tr>
<tr>
<td>3</td>
<td>Has the VHT been done manually</td>
<td>Add</td>
</tr>
<tr>
<td>4</td>
<td>Batch Number</td>
<td>Add</td>
</tr>
<tr>
<td>5</td>
<td>Line ID</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Number of packages</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Sampled number</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Result</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Remarks</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Animal faeces</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Contaminant</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Contaminants - Live or Dead rodents</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Dead insect</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Disease (discoloration)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Diseases - Virus/Vroid</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Ergots</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Frass</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Inadequate or inaccurate trade description</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Irrot material</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Insects - Egg/Moths/Caterpillar (Lepidoptera)</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Insects - Live injurious (Grain and seed inspections only)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Insects - Moths (Lepidoptera)</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Lesions</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Live insect</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Live pest</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Mites</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Mould</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Positive ARGT result</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Soil</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Stings</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Weed seeds</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Authorised officers</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Authorised Officer</td>
<td></td>
</tr>
</tbody>
</table>

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Continue the remainder of the horticulture inspection as per the Reference: *Plant Exports Management System (PEMS) Authorised officer user guide – Horticulture Inspections.*
Related material

The following related material is available on the department’s website:

- Micor Plants (importing country requirements, protocols, and work plans)
- Protocols, work plans
- Plant Export Operations Manual
  - Reference: PEMS AO user guide – Overview and General functions
    - Horticulture inspections

The following related material is available on the department’s Learnhub:

- Plant Export Management System (PEMS) video tutorials

Contact information

- Authorised Officer Hotline: 1800 851 305
- Authorised Officer Program: PlantExportTraining@awe.gov.au
- PEMS Administration: PEMS@awe.gov.au.
Document information

The following table contains administrative metadata.

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<thead>
<tr>
<th>Instructional Material Library document ID</th>
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<td>IMLS-9-8194</td>
<td>Director, Business Systems Program</td>
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Version history

The following table details the published date and amendment details for this document.

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<tr>
<td>1</td>
<td>11/11/2021</td>
<td>First publication of this user instruction.</td>
</tr>
<tr>
<td>2</td>
<td>21/02/2022</td>
<td>Updated in line with PEMS Feb release.</td>
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</tbody>
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