What is eMB-Pigs?

The electronic medicines book for pigs (eMB-Pigs) was launched in April 2016 by AHDB, with support from the Veterinary Medicines Directorate (VMD) in response to the industry’s need for a single system to collect and collate data on antibiotic use.

The data collected through eMB-Pigs will place the pig industry in a strong position in anticipation of future legislation that requires the reporting of aggregated data on antibiotic use by the UK pig industry.

The creation and development of eMB-Pigs was guided by the Pig Health and Welfare Council (PHWC) which includes representation from key sectors of the pig industry from England, Wales, Scotland and Northern Ireland.
How does eMB-Pigs work?

eMB-Pigs allows users to maintain a record of their antibiotic use through three main routes:

**OPTION 1** – Enter data on total antibiotic use either directly into eMB (1A) or in spreadsheet form (1B).

**1A:** Entering data on total antibiotic use directly into eMB-Pigs for a given time period (for example, annually or quarterly), from on-farm records.

This option requires producers to maintain a separate on-farm medicine book.

**1B:** Downloading an Excel template from eMB-Pigs and adding to it all medicine or total antibiotic use which can be stored on a computer and uploaded for a given time period (for example, annually or quarterly).

This option is perfect for producers who may not have internet access on the farm.

**OPTION 2** – Use the eMB in place of your paper medicine records.

Entering data on all medicine use directly into eMB-Pigs.

This option allows eMB-Pigs to act as a full medicine book to replace current medicine records.
How will I benefit from using eMB-Pigs?

To measure is to know... If you can not measure it, you can not improve it.

Lord Kelvin, 1800s

eMB-Pigs is a simple and efficient way in which to comply with the Red Tractor requirements for monitoring antibiotic use on farm. It has the added advantage of providing a paper-free alternative to the legally required on-farm medicines book should you wish to use it as such.

As of November 2017, it became a requirement for Red Tractor Assured producers to upload their herd antibiotic usage onto eMB every 3 months. The quarters are as follows:

- 1st January – 31st March
- 1st April – 30th June
- 1st July – 31st September
- 1st October – 31st December

Please note: producers have until 6 weeks after the quarter has finished to upload their antibiotic usage. If not this will be classed as a non-compliance during quarterly veterinary assessments and annual Red Tractor inspections.

eMB-Pigs gives users the opportunity to collate and review their antibiotic usage and identify areas where use can be optimised. If data is entered quarterly, it also allows producers to monitor trends in use between quarters. The future developments of eMB-Pigs will allow producers to benchmark antibiotic use on their farms against anonymised data from similar units.
Getting started

For simple antibiotic entry, check you have:

✔ Pig Hub/eaml2/eMB login details
✔ Names of all antibiotic product used, split by pig age group
✔ Quantity of each antibiotic used, split by pig age group
✔ Quantity of each in-feed antibiotic product, split by pig age group
✔ Reason for administration, if known
✔ Number of sows and boars present on your unit(s)
✔ Number of breeding animals (gilts and boars) that have left your unit(s)
✔ Number of finisher pigs that have left your unit(s)
✔ Number of weaned piglets (up to 5 weeks of age) that have left your unit(s)
✔ Number of weaners/growers (over 5 weeks of age that have left your unit(s)

If you are using the bulk load spreadsheet, you will also need:

The list of all your units, along with their CPHs and Pig Hub GUIDs (AHDB can provide these for you). The MA (Marketing Authorisation) number of each of the antibiotic products (including in-feed) you have used on each of your units. (There is a lookup table in the bulk spreadsheet).
Step 1

Log in to the AHDB Pig Hub using the same details you already use for Pig Hub and eAML2.

If you do not have a Pig Hub account, click on the appropriate icon to register (the pig icon allows producers to register).

www.pighub.org.uk
Step 2

Select your appropriate section of Pig Hub – either ‘Producers’ or ‘Corporates’. Click on the e-Medicine Book link in the AHDB Pork Services menu.

The e-Medicine Book link should direct you straight to the online portal.

The e-Medicine Book can also be accessed directly from the following link:

eMB-Pigs.ahdb.org.uk
Step 3

Once on the eMB-Pigs website:

- Confirm you have read and accepted the terms and conditions
- Select your holding on the Choose Pig Holding Page
- Then click on the ‘Enter data’ link at the right-hand side.

Select the holding you wish to enter data for

Click here to start entering data
How do I add antibiotic use data?
Select one of the following three options and follow the instructions.

Option 1A – Total antibiotic use data directly into eMB

Enter data on total antibiotic use directly into eMB-Pigs for a given time period (for example, annually or quarterly), from your own records.

This option requires producers to maintain a separate on-farm medicine book.
**Option 1B – Total antibiotic use data in spreadsheet form**

Download an Excel template from eMB-Pigs and add to it all medicine or total antibiotic use, which can then be completed offline and uploaded back onto eMB-Pigs for a given time period (for example, annually or quarterly).

**Option 2 – Use the eMB in place of your paper medicines records**

Enter data on all medicine use directly into eMB-Pigs. This option allows eMB-Pigs to act as a full medicine book to replace current medicines records.
How to: Option 1A

Step 1

Once you have selected the **Simple antibiotic data entry** option, you can choose the default period (the last quarter) or a custom period. Data can be entered for a 3, 6 or 12-month period. We advise that producers use 3-monthly returns, whenever possible, as this allows seasonal trends in use to be monitored.

![Time period for data entry](image)

You must enter your EARLIEST data first. There is no option to add old data once newer data has been entered.
Step 2

To enter antibiotic data, select **Add total amount of antibiotic used**. Total usage for each age category of pigs should be entered separately.
Step 3

Add Antibiotic product
(All formulations except for in-feed medicated premix)
• Select product and age group from the drop-down menu.
• Enter the total quantity of antibiotic product used in the selected age group for the chosen time period.
• Select the appropriate unit and primary reason for treatment from the drop-down menu.
Select Save.

Tip Start typing the product name; recently used products will be at the top of the list

Add your medicated feed deliveries
(For in-feed medicated premix)
• Select ‘Return to dashboard’ from the menu on the right.
• Choose the ‘My feed stock’ option from the menu on the right.
• Enter the feed name and select the ingredient (premix) name from the drop-down menu.
• Enter the concentration (inclusion rate) in feed and select the unit from the drop-down menu.
• Now add your delivery details.
• Select ‘Enter data’ from the menu on the right to add your antibiotic usage return.
Add Feed in stock (For in-feed medicated premix). The product list will contain ‘Feed in stock’ added. To see how to add Feed in Stock, please follow the instructions below.

- Select product and age group from the drop-down menu.
- Enter the total quantity of medicated feed used in the selected age group for the chosen time period.
- Select the appropriate unit and primary reason for treatment from the drop-down menu.
- Select Save.
- Repeat for all products used and for every category of pigs treated.

Certain feed suppliers, with your permission, will enter your feed in stock deliveries for you. You will, however, need to include the amount of feed you have used in your antibiotic return.
How to: Option 1B

Once you have selected the **Use our Excel templates** option, select either:

**Yes, upload a completed template** or **No, I need to download a template**.

Please note, we encourage you to download a new template every time you wish to upload your antibiotic usage in the event of any added changes e.g. new drugs.

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### Template options:

#### Medicine book template
You can use this spreadsheet offline as the full on-farm medicine book for your holding. When you upload it, we will extract only antibiotic treatment data and generate an antibiotic usage return for you to review and submit.

#### Total antibiotic usage template
You can use this spreadsheet offline to supply eMB-Pigs with antibiotic usage totals only. When you upload it, we will generate an antibiotic usage return for you to review and submit.

#### Bulk antibiotic usage template
You can use this spreadsheet offline to supply eMB-Pigs with antibiotic usage totals for multiple holdings in one go. When you upload it, we will validate your entries and submit final returns for all holdings.

Data can be entered offline and uploaded at a later date. This option is ideal for producers with limited internet access on farm.
Submitting the antibiotic usage

Once you have successfully uploaded your data, select the **Submit** option in the top right-hand corner. You will then be required to enter additional **Holding Information**.

Please select the appropriate **Holding category** from the drop-down menu and enter the information with regard to:

- Number of sows and boars present
- Number of breeding animals (gilts and boars) that have moved off your unit(s)
- Number of slaughter pigs that have moved off your unit(s)
- Number of weaned piglets (up to 5 weeks of age) that have moved off your unit(s)
- Number of weaners/growers (over 5 weeks of age) that have moved off your unit(s)

> If you don't have pigs in a population category (eg no sows and boars), you must enter 0 (zero).
Can I edit a return once it has been submitted?

1. You may edit a return within 24 hours of submission

From the dashboard, select Submission History from the menu on the right. Select the submission that you wish to edit.

Select Undo Submission to allow you to edit and resubmit.

2. Remove a submission after 24 hours

To remove a submission after 24 hours, please contact AHDB directly or email:

Pig.Hub@ahdb.org.uk
How to: Option 2

Step 1

Once you have selected the **Use eMB-Pigs as my full medicine book** option, you are able to enter data for the previous quarter. Data can be entered in real time as and when treatments are administered, as you would a standard paper medicine book. You can move between quarters by selecting **Previous Quarter** or **Next Quarter**. Then select one of the three options:

A **Add animal treatment**

Add all antibiotic and non-antibiotic treatments given to a single animal or group of animals.

B **Add routine treatment**

Add non-antibiotic treatments which are administered on a regular or routine basis for long-term disease control purposes such as vaccinations, iron supplementation and coccidiosis control. Note that this section does not support the entry of antibiotic data.

C **Add purchased medicine**

Add details about medicines you have purchased for use in pigs.
Step 2

A. Add animal treatment

**Medicine Product**
(All medicines except for in-feed medicated premix)

• Complete all the highlighted fields by either selecting an option from the drop-down menu or entering a date or figure. All other fields are optional.

• Select **Save**.

**Feed in stock**
(For in-feed medicated premix)
Please see directions on page 14.
Step 2

B. Add Routine Treatment

Complete all the highlighted fields by either selecting an option from the drop-down menu or entering a date or figure. Other fields are optional. Select Save.
Step 2

C. Purchased Medicine

Complete all the highlighted fields by either selecting an option from the drop-down menu or entering a date or figure. Other fields are optional. Select Save.
How can I review my antibiotic use data?
**Group antibiotic usage update**

Reports antibiotic usage across all holdings for a given time period.

The time period for the report can be changed by selecting **Change report dates** from the menu on the right of the screen.

Select how you want your antibiotic usage to be measured in the first grey panel.

See page 28 for more information.

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Tip

Click on the 'Download CSV' link to download an Excel spreadsheet showing all historic antibiotic data for your farm(s). This is available for both group and individual holding reports.
The report shows:

A. Antibiotic use for critically important antibiotics and all other antibiotics for chosen holding.

B. Quarterly summary of total use of antibiotics for critically important antibiotics and all other antibiotics.
Holding antibiotic usage report

Reports antibiotic usage for a selected holding for a given time period.

Select the holding you wish to review from the main menu.

Then, from the menu on the right-hand side, select **Holding antibiotic usage report**.
The report shows:

A. Antibiotic usage trend by quarter for critically important antibiotics and all other antibiotics for chosen holding.

B. Antibiotic usage by class for stated time period for chosen holding.

C. Antibiotic usage for critically important antibiotics.

D. Antibiotic usage for all other antibiotics.
How is the antibiotic use measured?

There are two options for users to measure their antibiotic use.

1. Antibiotic active ingredient used per weight of pig (mg/kg)
   - The mg/kg measure of antibiotic use is calculated by dividing the total usage of each antibiotic active ingredient in milligrams (mg) by a measure of the average weight of pigs at time of treatment on your holding in kilograms (kg).
   - Antibiotic usage (mg/kg) = total active ingredient usage (mg) divided by the average weight of pigs at time of treatment (kg).
   - To estimate the total weight of pigs, both the holding category and the number of pigs that have been moved off the holding or which are present on the farm, as declared when submitting the antibiotic usage return, are needed. The table opposite shows how the total weight of pigs is calculated, for each holding category.
   - For example, for holdings in the Breeder to Finisher the weight of pigs is the number of slaughter pigs declared in the return multiplied by the average weight at treatment for finisher pigs (65 kg).
   - The assumed average weights at the time of treatment are standardised weights rather than exact measures and they have been adapted from the European ESVAC project* to be more representative of the UK herd. Treatments are often given towards the start of the weaning or finishing periods, which is why the weights are lower than the usual weight of a pig at the end of the weaning period or at slaughter. Please note that the mg/kg analysis acts as an indicator for trends in antibiotic use in the pig population over time, rather than being an absolute measure of use on your farm.

*More information on the ESVAC Project can be found on the European Surveillance of Veterinary Antimicrobial Consumption (ESVAC) Website.
2. Total quantity of antibiotic active ingredient used (kg)

- Your total usage of each antibiotic ingredient (in kilograms) will be displayed. This measure is difficult to compare where production scale changes over time or between pig holdings.

<table>
<thead>
<tr>
<th>Holding Category</th>
<th>Weight of Pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeder only</td>
<td>= Number of weaned piglets leaving at 4kg (assumed average weight at treatment)</td>
</tr>
<tr>
<td>Breeder to weaner</td>
<td>= Number of weaners leaving at 25kg (assumed average weight at treatment)</td>
</tr>
<tr>
<td>Nursery</td>
<td></td>
</tr>
<tr>
<td>Breeder to finisher</td>
<td>= Number of finishers leaving at 65kg (assumed average weight at treatment)</td>
</tr>
<tr>
<td>Nursery to finisher</td>
<td></td>
</tr>
<tr>
<td>Finisher only</td>
<td></td>
</tr>
<tr>
<td>Boar stud</td>
<td>= Average number of sows and/or boars present at 240kg (assumed average weight at treatment)</td>
</tr>
<tr>
<td>Pet pigs</td>
<td></td>
</tr>
<tr>
<td>Gilt unit only</td>
<td>= Number of breeding animals leaving at 65kg (assumed average weight at treatment)</td>
</tr>
</tbody>
</table>

The table below also shows how your farm will be grouped with others for the trend reports and benchmarking reports.