# How to use E-Check

What is E-Check?

E-Check is a simple greenhouse gas emissions calculator which has been developed for arable and mixed arable farming systems. It takes the form of an Excel spreadsheet, with three pages.

In Excel, pages can be opened by clicking on the tabs at the bottom left of the spreadsheet. Each E-Check page has been set up to record and/or calculate different types of information:

1. Farm information
2. Fertiliser emissions
3. Livestock emissions (ignore this page if you have no livestock).
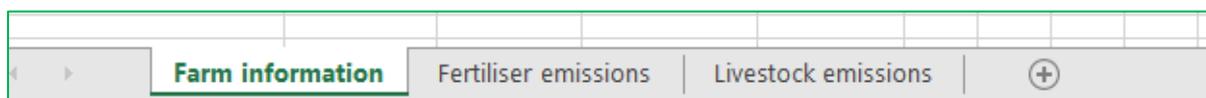
Above *E-Check pages/tabs can be found at the bottom left of the spreadsheet. Click on the tab for the page you want to open.*

Define your year and gather your farm records

The start and end date in E-Check are flexible, so define a 12-month period that works for your farm business.

You will need two sets of farm information: nitrogen fertiliser purchase records and stock purchase and sale records.

Nitrogen fertiliser purchase records: You'll need to know how much N fertiliser you used over your chosen 12-month period. You can get this information from fertiliser company records, farm accounts, or by exporting a Fertiliser Input report from ProductionWise®. Once you know the tonnes of each product type, E-Check will do the rest.

Stock purchase and sales records: If you have stock, you'll need a list of all the animals that were purchased and sold off the farm in your chosen 12-month period (and the associated dates). Farm accounts or diaries will be your best source of information here.

Once you have gathered all the information, you can enter it into E-Check.

Enter farm information

The first sheet of E-Check **(Farm information)** requires you to fill in the farm business owner's name, the business name and address, total area of farm business (including leased land) and the start and end date for reporting. As noted above, you can choose a 12-month period that best suits your farm business.

Enter fertiliser information

Now move on to the second page by clicking the Fertiliser emissions tab.

	Fertiliser product type	Tonnes of product applied (tonnes)
6		
7		▼

Click on the green cell A7 in the first column. A drop-down box of N fertiliser products will appear. Scroll down and click to select a product you've used. In the example below, we chose Urea.

Then, click on the next cell and enter the total weight, of that particular product, applied on farm in your chosen 12-month period. (see below, we entered a total of 10 tonnes of Urea)

E-Check automatically calculates total N applied, and the associated GHG emissions and enters the numbers into the cells (below).

	Fertiliser product type	Tonnes of product applied (tonnes)	Nitrogen in product (%)	Nitrogen applied (tonnes N)	Total Fertiliser emissions (kg CO_2-e)
6					
7	Urea	10	46	5	23328

Repeat this process until you have entered the total applications of all N fertiliser types for your farm. E-Check will automatically transfer the total emissions from all N fertiliser to the front page (Farm information) of the spreadsheet.

If you have no livestock on your farm, then save the file somewhere you will find it again or print it and keep it with your fam records.

If you do have livestock, move on to the third page by clicking the Livestock emissions tab.

Livestock information

If you are using a browser based app such as google sheets or Microsoft online, stop before you move on and make sure that you are set up with United Kingdom or New Zealand Formatting. Having your sheet set in United States formatting can cause errors in the stock day calculation which looks like this.

Stock class	Stock number	Day on farm	Day off farm	Stock days on
Cattle >2 year (Bull/Steer) ▼	1000	15/3/21	15/9/21	#VALUE!

Refer to the end of this guide (Page 6) for guidance on how to change or check your settings.

If you are using Microsoft office then you shouldn't have any issues.

Enter livestock information

On the Livestock emissions the drop-down box allows you to choose from a number of different stock classes (left). Select a stock class and enter the number of animals, along with the dates they came onto, and left your farm. If stock are held year round then enter their on and off dates as your defined 12 month period. If the stock were on the farm at the start of your 12-month period, enter day one as the 'day on'. If they are still there at the end your 12-months, the last day of that period will be their 'day off'.

Repeat this process until you have entered all stock on and off our farm for the year. If you buy and sell several lots of store lambs, record each lot separately. If stock are not sold in the same numbers as purchased, you should split the purchased lot into sales lots.

For example, if you bought 1000 lambs (Sheep <1 year) on 15 of February, and sold 600 on 15 of August and the remainder on 15 September you would create two stock groups for the one purchase.

Stock Group 1 - Purchase 600 Sheep <1 year; Day on: 15 February, Day off: 15 August

Stock Group 2 - Purchase 400 Sheep <1 year; Day on: 15 February, Day off: 15 September

This allows E-Check to calculate the number of days the stock were on farm.

All done!

Check your numbers and save a copy

Check the front page "Farm information" sheet to see your farm's total greenhouse gas numbers. Save or print a copy of this sheet and keep it with your farm records.

Advice for web-based app (Google Sheets, Microsoft Online) users

If you are using Microsoft online or Google sheets to use E-Check you may come up against the issue below (#VALUE! In Stock days cell) when you enter your dates.
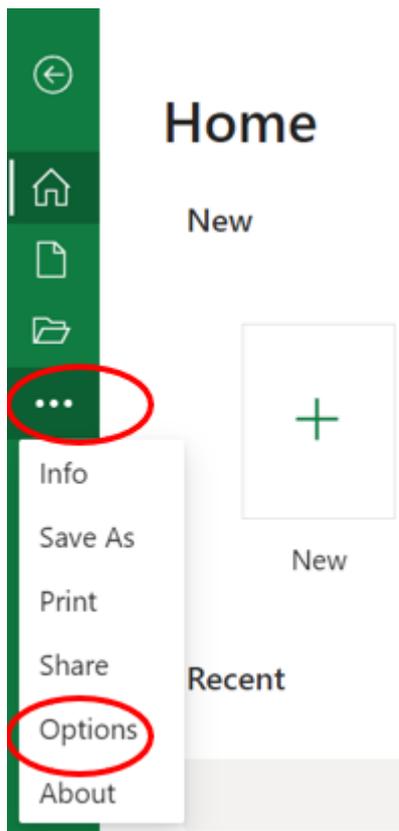
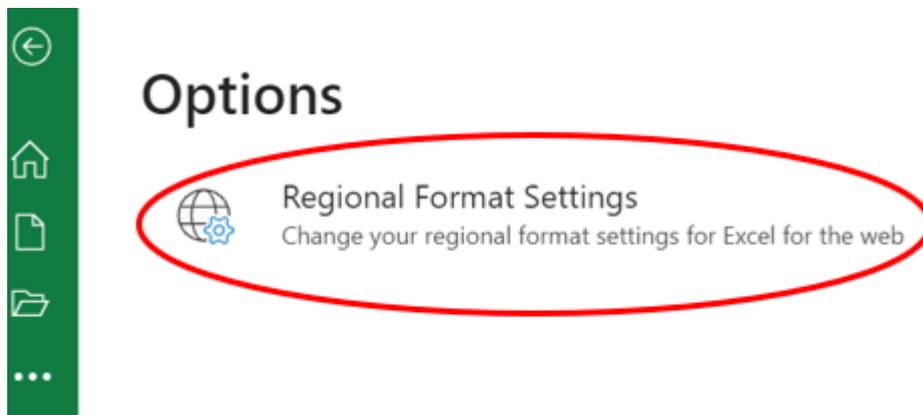| Stock class	Stock number	Day on farm	Day off farm	Stock days on
Cattle >2 year (Bull/Steer)	1000	15/3/21	15/9/21	#VALUE!

If this happens follow these steps in Microsoft online:

1. Click on "File"

2. Select the three dots **"…"** on the left-hand side menu and then click on "Options"

3. Select "Regional Format Settings"

4. The default is English (United States of America) – change this to English (New Zealand)

Change regional format settings

Select your preferred regional format for Excel for the web:
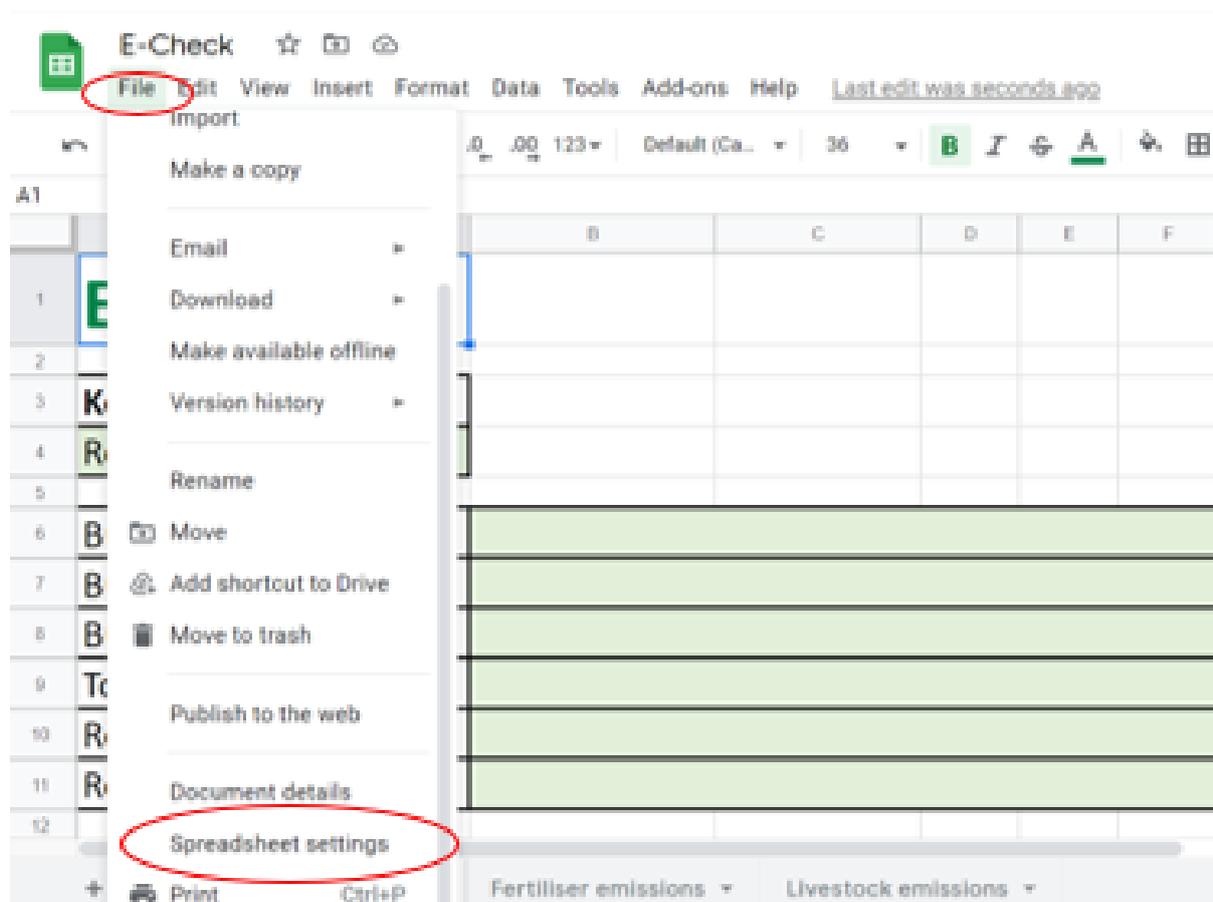
English (New Zealand)

Regional format settings affect dates, currency, formula delimiter and more.

Learn more

Change   Cancel

If you are using Google sheets follow these steps

1. Select File, then Spreadsheet settings

2. Under General change Locale to "United Kingdom" as there's no New Zealand option

3. Select the Day on Farm and Day off Farm cells, navigate to the 123 symbol and make sure Date is selected in the day/month/year format

Again, E-check will automatically calculate associated emissions and transfer them to the front page of the spreadsheet.

	Stock class	Stock number	Day on	Day off	Livestock emissions (kg CO_2-e)
7					
8	Sheep <1 year	250	1/07/2020	24/09/2020	12352.3