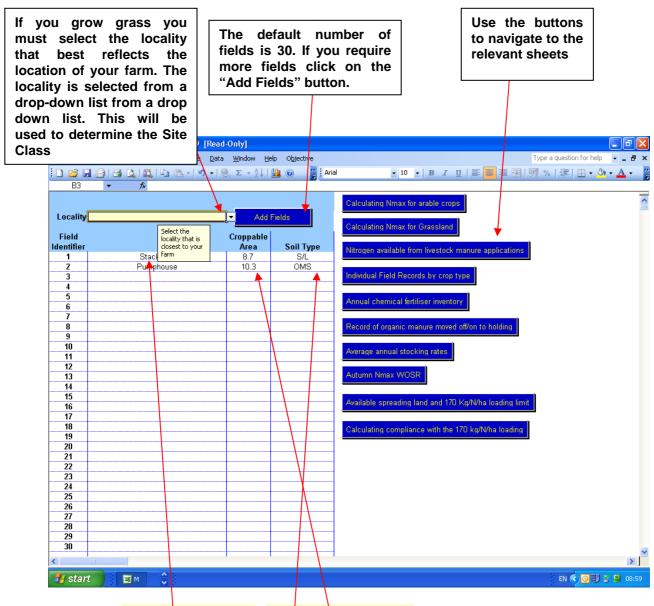
Using the NVZ excel workbook

On first use the workbook should open at the "Home" page, if not click on the "Home" button, which appears on each sheet. The Home page is used to record the field information relating to the farm i.e. the field name area and soil type. **Note that this information is associated with a field identifier.** The field identifier is then used to capture fields in the Nmax planning sheets. If more than one crop type is being grown in a particular field then each part of the field should be given a different name e.g. Stackyard A, Stackyard B etc

Once you have completed the home page, you should print off a copy for quick reference when completing other sheets.



Enter the <u>field name or FID</u>, <u>utilisable field area</u> (i.e. the area of the field used for cropping or grass) and soil type for each field in the NVZ

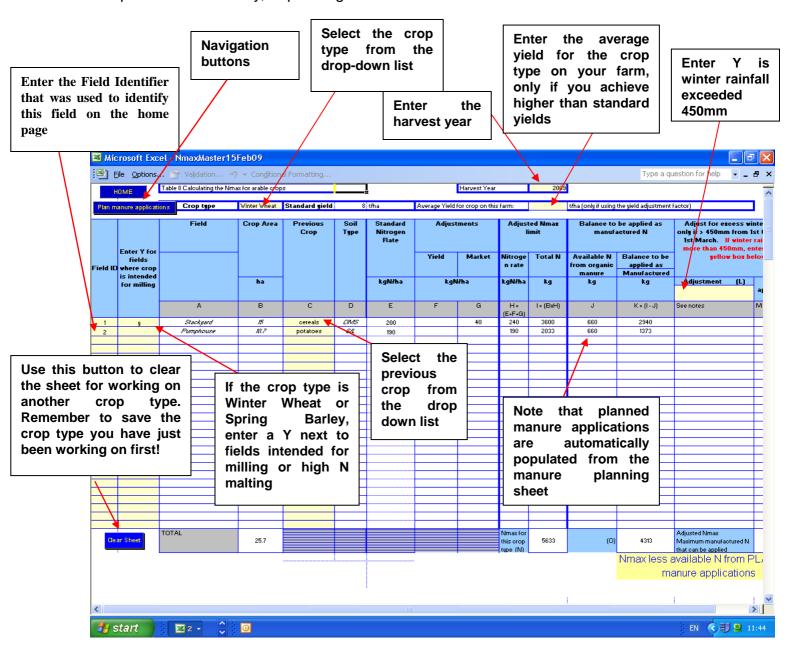
Nmax calculator for arable crops

Important – You can only work on one crop type at a time (including grass). If the crop type has had an application of livestock manure, or an application is planned you will also have to complete the manure planning sheet.

Each crop type should then be saved as a different file e.g. Wheat 09, Winter Barley 09, Grass 09 etc. This will save the whole workbook with associated planned manure applications and the field records for each crop type.

The screen shot below shows a simple example for 2 fields of Winter Wheat (apologies for the small size!)

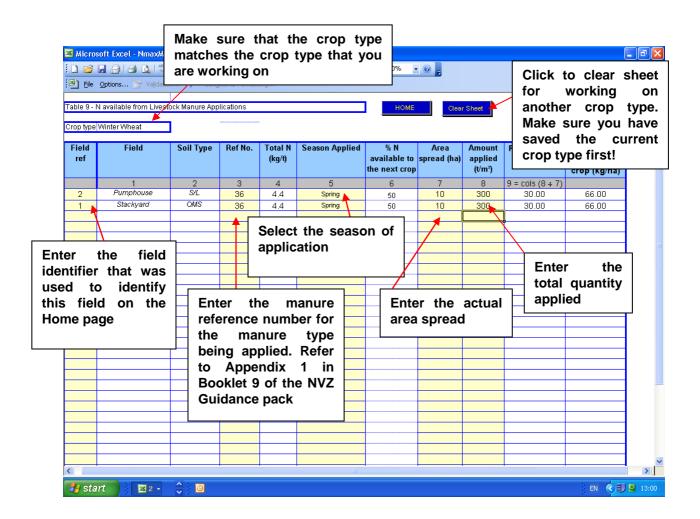
Note that boxes requiring an entry are shaded yellow. The other boxes will be completed automatically, depending on information entered elsewhere



N available from livestock manure applications

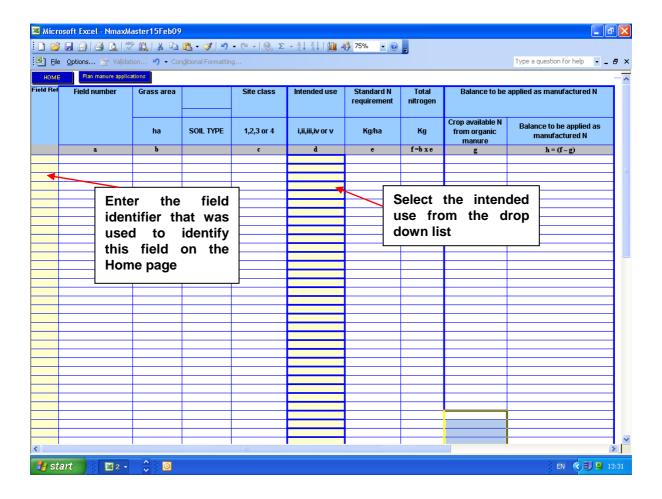
Important: The crop type on the organic manure calculator sheet must match the crop type that you are working on.

As with the Nmax calculator, entries are only required in the yellow shaded boxes. The remaining boxes will be completed automatically.



Nmax for Grass

This only requires entry of the Field identifier and intended use. Everything else calculates automatically.



Field records by crop type

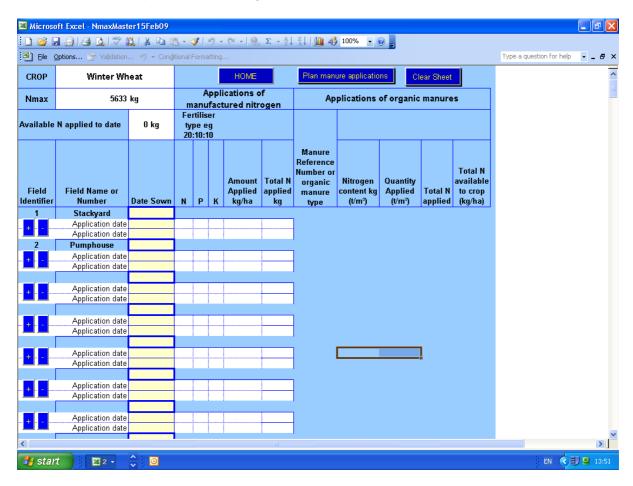
The field records will be pre-populated with names of the field for each crop type. Note the + and - signs next to the field identifier. Clicking on the + sign opens up further rows for this field (see screen-shot on next page)

Note that you have to enter the sowing date for each field growing the crop type. This part of the record keeping requirements

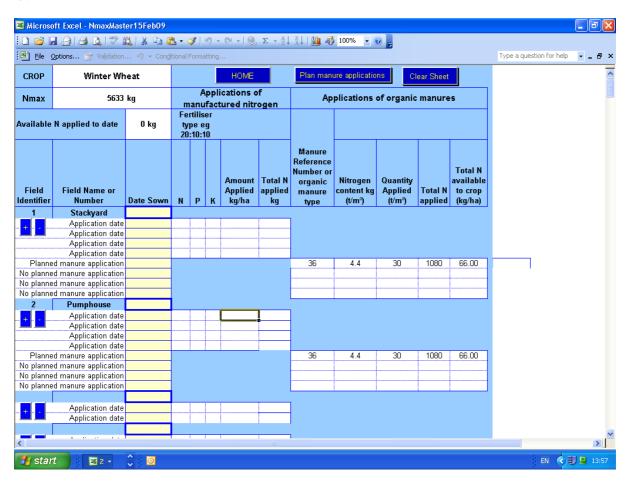
All planned manure applications are pre-populated for the crop type (see screenshot on the next page)

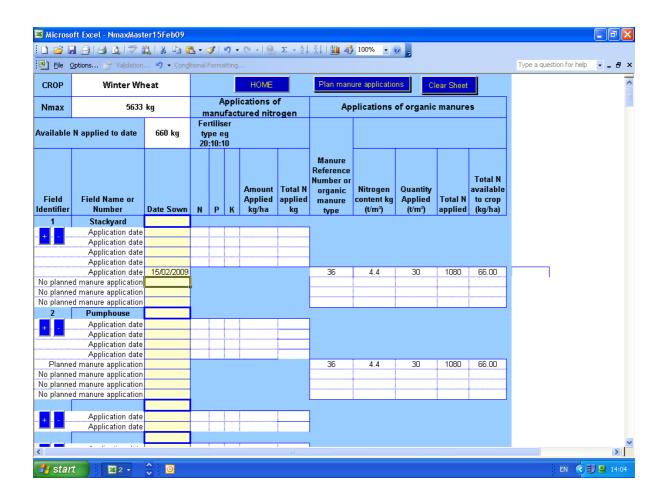
To capture manufactured nitrogen applications:

- 1. enter the date of the application
- 2. enter the NPK formulation into the boxes e.g. 20 10 10
- 3. enter the application rate in kg/ha



Note that the planned manure applications are now visible, but that they are not yet accounted for as available N. Entering an actual date of application will change the status from "Planned manure application" to "Application date" and the application will be credited to the "Available N applied to date" box. See screen-shot on next page. If your planned applications change you will have to amend your manure planning sheet for the crop type





Previous crops

1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, not grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, not grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months o		
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or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 1-2 Year high N leys, grazed within 2 months of	, , , , , , , , , , , , , , , , , , , ,	1-2LNG
or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct 3-5 LNG 3-5 LNNG 3-5 LNG 3-5 LNNG 3-5 LNG 3		3-5 HNG
or Oct 1-2 Year high N leys, grazed within 2 months of ploughing out or during Sep or Oct Beans Carrots Cereals Combining peas Grain lupin Grazed fodder Hemp Harvested fodder (whole crop) HFWC Harvested fodder (root only) Leafy brassica vegetables LBV Linseed Leafy non-brassica vegetables LNBV Oilseed rape PGHNG PG HNNG POtatoes Swedes Thick permanent grass, low N Thin permanent grass, low N, low clover Turnips (removed) Vining peas		3-5 HNNG
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Leafy non-brassica vegetables Cilseed rape PGHNG PG HNNG Potatoes Swedes Thick permanent grass, low N Thick PGLN Thin permanent grass, low N, low clover Turnips (removed) Vining peas	Leafy brassica vegetables	LBV
Oilseed rape PGHNG PG HNNG Potatoes Swedes Thick permanent grass, low N Thin permanent grass, low N, low clover Turnips (removed) Vining peas		Linseed
PGHNG PG HNNG Potatoes Swedes Thick permanent grass, low N Thin permanent grass, low N, low clover Thin permanent grass, low N, low clover Turnips (removed) Vining peas	Leafy non-brassica vegetables	LNBV
PG HNNG Potatoes Swedes Thick permanent grass, low N Thick PGLN Thin permanent grass, low N, low clover Turnips (removed) Vining peas	-	Oilseed rape
Potatoes Swedes Thick permanent grass, low N Thick PGLN Thin permanent grass, low N, low clover Thin PGLNNC Turnips (removed) Vining peas		PGHNG
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Turnips (removed) Vining peas		Thin PGLNNC
Vining peas	, , , , , , , , , , , , , , , , , , , ,	
		Vining peas
		Whole crop lupins

Manure References for Separated Slurries

For use with the calculator, cattle and pig slurries that have been separated through strainer boxes, weeping walls or by mechanical means are given unique reference numbers as shown in the table below.

Cattle Slurry	
Manure Type - Separated - Strainer Box	Ref No
Surface Applied (not incorporated)	24
Ploughed In (within 6hrs)	24a
Band Spread	24b
Shallow Injected	24c

Cattle Slurry	
Manure Type - Separated – Weeping Wall	Ref No
Surface Applied (not incorporated)	25
Ploughed In (within 6hrs)	25a
Band Spread	25b
Shallow Injected	25c

Cattle Slurry	
Manure Type - Separated – Mechanical	Ref No
Surface Applied (not incorporated)	26
Ploughed In (within 6hrs)	26a
Band Spread	26b
Shallow Injected	26c

Pig Slurry	
Manure Type - Separated – Mechanical	Ref No
Surface Applied (not incorporated)	40
Ploughed In (within 6hrs)	40a
Band Spread	40b
Shallow Injected	40c