

Field Recording System

Reference Manual

Version 10.0

Documentation and Software by farmdata Limited © 1998-2018 farmdata Limited

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PREFACE

This document describes how Cropdata for Windows the Field and Stock Recording System produced by Farmdata Limited, operates. The program runs on Windows 2000 or above and is written in Visual Basic.net. It will not run on Windows 95 or Windows 98

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Related Documents.

Cropdata ; Getting started.

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INTRODUCTION

I. 1. What the System does

Welcome to Cropdata for Windows. The program described in this manual is one of the Farmdata family of computerised management information systems for agricultural businesses.

Cropdata uses the power of a computer to record and organise the complex information which accumulates during a growing season and present it in an easy to read format.

Once the information is entered it can be edited at any time. The full information is retained for all time or until **you** decide to delete it.

I. 2. The information it needs

From the recording point of view, the Cropdata system requires no more daily input than you would enter into manual field recording sheets.

Initially there is a bit of work involved in setting up the system with stock, crop, variety and field information unique to your farm.

Day to day entry of stock purchased and the recording of usage on the fields will produce all of the basic information you will require thereafter.

Operating at this level the system is simply a stock record and field costing system. You can extend this further if you wish. Entry of observations will give you a field diary. Schedules can be planned in advance for budgeting purposes, to work out stock requirements and to print out work sheets. Any number of soil sample results, limings, and eelworm test results can be stored for each field.

I. 3. The information it can provide

Run at its simplest the system will provide a gross margin per field and a stock on hand list. You can however run it at much more detailed levels.

Full Stock auditing is available to give you an exact trace of where each item came from and where and when it was used.

The Observation section can be used to give a complete field diary.

The Planning section can be used to budget costs and physical quantities. It will also provide

stock Requirement Sheets for specific time periods, Job Lists and Job Sheets can be given to operators as instruction and returned as input documents.

The reporting flexibility is particularly useful. Any information held on a field record can be produced in report formats you can create yourself.

Full Historical information is held in complete detail. There is no summarising in a History section. All soil test, liming and eelworm test results are retained for reference.

I. 4. Finding your way around

The program is written in 'Microsoft Visual Basic.net' to run in the 'Microsoft Windows' operating system. This gives it all the flexibility and function now available with this type of programming. It is designed to be used with the mouse and to have the minimum of keyboard input.

Clicking into one option on the screen will often take you to another screen with further options. You may need to take time at first to find out where everything is. If you go into the wrong option, simply exit out again and you will be back to the previous stage.

Within a screen you should use the Tab Key to move between data fields, not the return key. Shift + Tab goes back through the fields.

If a field has a box with a down arrow at the end, it has a predefined list from which to pick. Once in the field you can scroll down the list and select the required item. Alternatively type the first letter of the item you wish, this will give you the first item with this initial letter. Press the same letter again to move to the next item on the list with that initial letter. New items can be added to lists by clicking on the **Add button** beside the list field.

I. 5. If you get Stuck

Something somewhere is sure to catch you out. It is often just a matter of taking a step back to the previous section and starting again.

Switching the machine off is never a good option but it is unlikely that you would cause real damage if you did. You are likely to lose any unsaved entries which will have to be re-entered.

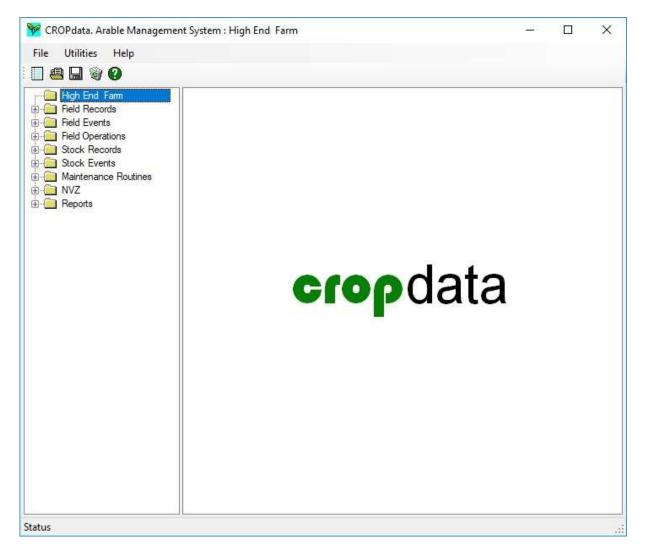
Should you get totally stuck you can call up Farmdata's help line which is manned during office hours for assistance. Outwith office hours Farmdata can be contacted by fax (01467671448), e-mail (<u>support@farmdata.co.uk</u>) or through our website (www.farmdata.co.uk).

It is absolutely necessary that you take regular backups of your work. You should keep at least three sets of backups and use them in rotation. Set A should be used on Day 1, Set B on Day 2, Set C on Day 3 and on day 4 you should return to Set A. Should all else fail Farmdata can resurrect your system from your backup if it is correctly done.

I. 6. Using this Manual

Each of the sections shown in the Screen below is explained in an individual chapter. They are headed:

- 1. Maintenance
- 2. Field Records
- 3. Field Events
- 4. Field Operations
- 5. Stock Records
- 6. Stock Events
- 7. NVZ
- 8. Reports

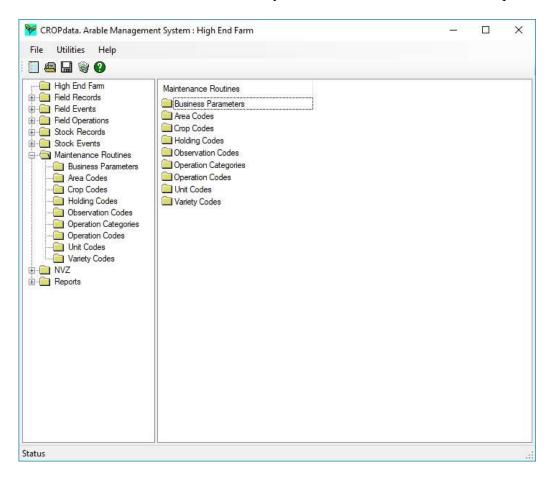


Each of these sections can contain a number of further options, each of these is described in a numbered section within the chapter. Each option available within a section is described in the order in which it appears. Each option is listed then it's operation described.

CHAPTER 1. MAINTENANCE

This section contains the basic information needed to set up and run the system. Some adjustment will be required here when the system is started to tailor it to you requirement.

Most of these sections can be updated whilst entries are being made. The **Add Button** can be used in most data entry routines to create new items as required.



All of the lists can be edited to meet your requirements. It is not advisable to delete an item once you have used it in an entry. This will leave blanks in your historical records. It is easier, where possible, to make the item "Non-Current".

Business Parameters

1.1. Business

<u>B</u> usiness H <u>a</u> rvest			
Name:	High End Farm		
Address:	Northfield		
	Kinross		
	Angus		
Post Code:	KY32 50S		
Telephone:			
Fax:			
E-Mail:			
Holding Number:	62/101/0019		
Password:			

A. Business Name, Address and Telephone Number:

The trading name, address and contact telephone number of the business.

B. Holding No.

The official Ministry of Agriculture code for the principle holding of this business.

C. Password

Used to access the business when entered here.

1

1.1.1. Harvest

Business Harvest				
Units:) Hectares: 🔘	Acres:		
Harvest Year:	2017			
Farm Size:	334.18			
Cropped Area:	0.00			
☑ Enable Stock Co	JINIOI.			
L	лио.			
	JUUI.			
	лио.			
	JINIOL.			
	JIIIOI.			
	лио.			
	JANOL.			

A. Units

This sets the system to work either in Imperial or Metric measures. Acres for Imperial or Hectares for Metric.

B. Harvest Year

This sets the default year for entering and extracting information. It is generally set to the crop year you are currently entering information for (i.e. 2017 for crops to harvested in 2017). It should be reset each year when you move forward to the next crop. It can be over-ridden for individual entries or reports as required.

C. Farm Size / Cropped Area

Total farm area and total cropped area of the business.

D. Enable Stock Control.

When this is set to **Yes** the system gives full Stock traceability. It will record when and from whom stock was purchased and show where and when it was used. If set to **No** only current available quantities of stock can be listed.

1.2. Areas

Code:	Т		~			
Description:	Tu	innels				
Omit this Are	a Code fro	m Occurrenc	es:			

These are the units which can be used as 'Secondary areas' within a field. They are not generally used in field scale agriculture but rather in horticulture where detailed costing on a particular scale is required.

To create a new area, click **New**, fill in the code you wish, Tab to Description Field, fill in Description and click **Save**. You may not delete a code which is already in use.

1.3. Crop Codes

<u>C</u> rops Autumn N Spr					
Code:	WW	~			
Description:	Winter Whea	st			
Type:	Cereals	~			
Residue Group:	1 ~				
Standard Yield:	8.00	Tonnes / Ha			
Expected Yield:	10.00	Tonnes / Ha			
Additional Nitrogen for Yields > Standard:	20.00	Kg / Ha:			
Omit this Crop Cod	e from Occurre	nces:			

This is the list of crops you grow on your farm. The program has a pre-set list. This is based on the list in the IACS explanatory booklet. This can be changed to your own specification if you wish.

To add a new crop, click **New** and enter the code, description and crop class (crop class relates to IACS classification). Then click **Save**.

Туре	Indicates the IACS Classification of the crop.
Residue Group	This used for NVZ reporting and calculation. Set the residue group of this crop to applied to the following crop.
Standard Yield	Use in NVZ calculations. This is the standard yield figure for the crop as set in the NVZ guidelines. Applies to cereals and WOSR.
Expected Yield	Your predicted yield for the crop based on historic information. This can be varied in individual field records. Applies to cereals and WOSR.
Additional Nitrogen	Where the Expected Yield differs from the Standard Yield this is the variation to be applied to the Standard Nitrogen figure. Entered as Kg of N per Ha.

The following do not apply to forage crops. Forage crop values are set in the NVZ section under grassland management.

Autumn N

The value of N which may be applied in the Autumn to a particular crop as set in the NVZ guidelines. Based on Soil Type and Residue Group of previous crop.

rops	Autumn N	Spring N	Adjustments	Winte	r Rain			
Cod	le:	WOS	R					
Description:		Winte	er Oilseed Rape					
Not	e: Figures bel Soil Type Humose S		09 onwards; Group	o 1 30	Group 2 20	Group 3	Group 4	Grou
ľ	Other Min			30	20	10	0	
	Peaty Soi	ls		30	20	10	0	
	Sands			30	20	10	0	
	Sandy Lo	ams		30	20	10	0	
	Shallow S	ioils		30	20	10	0	
			ALC:					diameters in
<								>

Spring N

The Value of N which may be applied in the spring to a particular crop as set in the NVZ guidelines. Based on Soil Type and Residue Group of previous crop.

Cod	e:	WOS	R					
Description:		Winte	er Oilseed R	ape				
	Soil Type Humose Soil	5	G	iroup 1 120	Group 2 110	Group 3	Group 4	Grou
1	Other Minera	Call Inc.		200	110	180	140	
	Peaty Soils			80	70	60	40	
	Sands			200	190	180	140	
	Sandy Loam	s		200	190	180	140	
	Shallow Soils	3		200	190	180	140	
<								>

Adjustments

These are variations which can be applied to the standard N figures for a particular crop as set in the NVZ guidelines. Based on Soil Type and Residue Group of previous crop. This is usually associated with the intended market.

ops	Autumn N	Spring N	Adjustments	Winte	r Rain			
Cod	le:	WW						
De	scription:	Winte	ar Wheat					
Not	e: Figures belov Adjustment Milling		09 onwards: Grou	р 1 40	Group 2 40	Group 3 40	Group 4 40	Grou
	and the second se							
<								>

Winter Rain

Adjustment which may be applied to standard nitrogen for high winter rainfall for a particular crop as set in the NVZ guidelines. Based on Soil Type and Residue Group of previous crop.

Code	¢.	WW					
Desc	ription:	Winter Whe	at				
•	Soil Type Humose So	ils	Group 1	Group 2	Group 3 10	Group 4	Grou
			100103 (* 0 %).	1.1.7.1.1.7.1.7.7.7.7.7.7.7.7.7.7.7.7.7	Sector Inclusion	Constraint Constraint	Grou
P	Other Miner		0	10	10	10	
-							
	Peaty Soils	i	0	10	10	10	
l I	Sands		0	10	20	20	
	Sandy Loan	ns	0	10	20	20	
		s	0	10	20	20	
	Shallow Soi		1				
•	Shallow Soi						

1.4. Holdings

olding <u>R</u> ainfall			
Code:	EN ~		
Description:	North End		
Holding Number:	67/001/0004		
Region:	Scotland ~		
Height	100		
Omit this Holding	Code from Occurrences:		

Holdings within a business can be identified. They are necessary for NVZ purposes. Each field on the farm can be allocated to a holding thus allowing operations to be done on a specific holding and reports to be formulated for each holding if required.

Height is required for NVZ purposes.

С	ode:		EN					
D	escrip	ation:	North End					
Ē		Year	Winter	Spring	Summer	Comment		1
1	•	2015	380	180	440		1	
		2016	380	180	440			
		2017	460	180	440			
	•							
								L
	<						>	

Rainfall figures are required for NVZ purposes. These can be taken from the standard tables issued in the NZV guidelines.

1. 5.Observation Codes

Observation Code	s			3 <u>°</u>	;
Code:	SM	~			
Description:	Severe Milde	w			
Omit this Obse	ervation Code from (Occurrences:			
				allow the second s	

The purpose of Observation Codes is to give you the facility to 'date stamp' a particular field with a particular event. These are normally things which do not have values applied but you wish to record. Examples might be dates of growth stages, observations of disease levels and pest infestation etc. This will build up a diary for this field which can be reviewed at any time. The codes can also be used in some reporting functions.

There is no pre-set code list, you can therefore create it to your own specification. To create a new Code click **New**, fill in the code you wish, Tab to Description Field, fill in Description and click **Save**. You may not delete a code which is already in use.

1. 6.Operation Categories

Code:	FERT	~			
Description:	Fertiliser				
Туре	Fertiliser	~			
	-				
Omit this Oper	ation Category from C	ccurrences:			
Omit this Oper	ation Category from C	ccurrences:			
Omit this Open	ation Category from C	ocurrences:			
Omit this Open	ation Category from C)ccurrences:			
Omit this Oper	ation Category from C	Occurrences:			

These are the descriptions of the main types of operations carried out on the farm. There are five pre-set codes. **FERT, SEED, SPRAY and TASK** (a costed operation such as ploughing or contractor cost) on the input side, and **YIELD** which records sales. The '**Type**' can be **Stock Item** which indicates that stock of the category can be purchases and held in store, **Non-Stock Items** cannot be held in store (tasks in general), **Fertiliser** is the same as a 'Stock Item' but indicates that an analysis can be entered and **Output** indicates that it is a Sale item.

To create a new Category click **New**, fill in the code you wish, Tab to Description Field, fill in Description, Tab to Type and select, and click **Save**. You may not delete a code which is already in use.

1. 7.Operation Codes

Code:	FC	~			
Description:	Fungicide				
Category:	Sprays		~ Add:		
Omit this Oper	ation Code from Occur	rences:			
Omit this Oper	ation Code from Occun	ences:			
Omit this Oper	ation Code from Occur	ences:			
Omit this Oper	ation Code from Occun	ences:			
Omit this Oper	ation Code from Occun	ences:			
Omit this Oper	ation Code from Occun	ences:			

These allow the above 'Operation Categories' to be subdivided. **Sprays** could be subdivided into Herbicides, Fungicides, etc. This gives greater flexibility in reporting and stock holding.

To create a new Category click **New**, fill in the code you wish, Tab to Description Field, fill in Description, Tab to Type and select, and click **Save**. You may not delete a code which is already in use.

4	. 8.	Units
	×	linite
_		UIIIIS

Code:	I	onnes	~			
Description:	To	onnes				
Omit this U	nit Code fror	n Occurrence	15:			

These are the units in which Stock is bought, sold and applied. For example, most fertiliser is bought in Tonnes but applied in Kilograms, Sprays may be bought by the Can, Bottle, Pack and applied in Litres or Kilograms. All of these should be entered here as Units.

To create a new Unit click **New**, fill in the unit Code you wish, Tab to Description Field, fill in Description and click **Save**. You may not delete a code which is already in use.

1.9.Varieties

Code:	Rogib		
Description:	Rogibus		
Crop Type:	Winter Wheat V Add:		
	r		
Туре:	Cereals ~		
	Cereals ∽		

The list of varieties you grow on the farm. The system comes preloaded with recommended variety lists for cereals and oilseeds. Again, the pre-set list can be edited as with **Crops** above. Each variety is related to a crop and IACS class.

CHAPTER 2 FIELD RECORDS

This section accesses the complete record of all fields whether current or non-current. It is generally for information only but any of this information can be edited if required.

New fields and sub-fields must be created here before any information can be entered.

2.1. Create a New Field

At the Initial Screen click on Field Records and click Field Records again on the second or subscreen. You will be presented with the screen shown below. If you have existing fields you will see the detail of the first field alphabetically on your list.

Field:	EN01	
Sub Field:		
Type:	Current ~	
Size:	12.39 Ha:	
Second Units:	(Please Select) ~ Add:	
Size:	0.00	
OS Number:	NO/32666/44216	
OS Map Sheet:		
Holding:	North End ~ Add:	
Comment:		

Click on **New** on the Bottom Button Bar and you will be presented with the small sub-screen shown below. (If it is the first field of the system this sub-screen will not appear.)

Please sele an existing	ct whether you wish to create a new Field, or a Sub Field o Field.
Field:	
🔿 Sub Fie	eld:
Field:	01 ~

If it is an entirely new field leave the button in 'Field' and click Ok. The 'Field Record' screen as above will appear with blank detail for you to fill in as follows:

Field:	The identifier of this field. This can be a name, number or combination of both. This identifier must be unique to each field. The list of fields is held in alphabetic order, numbers come before letters in computers.
Sub Field:	Not available when entering a new main field. Used to identify part fields when splitting main fields.
Туре:	Can be either Current or Non-Current . Non-Current fields are those which are no longer used. They may be fields that have been amalgamated, sold or no longer cropped for some reason. Their histories are all retained but are not shown in current reports.
Size:	The nominal O.S. area of the field.

Second Units: An alternative unit of measure as set up in Chapter 1, Section 2.1.

Second Size: The number of the second units in the Field.

O.S. Number:The Ordnance Survey Number of the field.

O.S. Map Sheet: The sheet number of the map for this field.

Holdings: The holdings this field is on.

Comment: Free space for your own comment on this field.

Click on **Save** on the Bottom Button Bar to store this detail.

Other details of the field's record can now be accessed by clicking on the tabs along the top. These details are not required at start-up. It is however necessary to enter the current crop details before any operations can be recorded and this is best done at this stage. This routine is explained later in this chapter.

2. 1. 1. Create a New Sub-Field

If there are fields which are split in a particular year (two or more crops or part in set-aside) then **Sub-Fields** have to be created.

Please sele an existing	ct whether you wish to create a new Field, or a Field.	Sub Field o
O Field:		
Sub Fie	ld:	
Field:	01	~

This is done by a similar routine to creating a new field. Click on **New** on the Bottom Button Bar. When the **New Field Sub-Screen** appears click in **Sub-Field** and select the field which is to be split from the drop-down list.

The record for that field will appear with the cursor in the **Sub-Field** section. Enter the identifier you wish for the sub-field. This should be two digits, letters or numbers. It is suggested that one of these should be the Year number for easy reference, i.e. A7 Would be the first section of the field for the 2017 crop, **B7** the reference for the second section.

The Size should be set to the area of the sub-field as should the Second Size if applicable. The only other item likely to be edited may be the **Comment**.

You should now click Save.

The crop for this Sub-field can now be entered in the **Crops** section of the **Options Bar.** Continue by the same routine till you have created all the sub-fields you need.

Care should be taken that the total area of the sub-fields should not be greater than the nominal O.S. area of the main field.

2. 2. Soil Analysis

Any number of soil sample results can be recorded against a field. These records can be examined and edited by clicking on the **Soil Analysis** tab.

	Soil Analysis	Limings	Eelworm	<u>C</u> rops	Operations	Manure	Observations		
Fie	eld:	01							
La	ind Class:	Non LF	Ą	v					
So	oil Type:	Sandy L	.oams	~	•				
Su	ıb Soil Type:								
Г	Date	PH	1	Phosphate	e Pot	ash	Magnesium	Sulphur	1
	•								
									L
<	1								

Land Class sets the class for IACS purposes, Non LFA, LFA or SDA.

The record holds both Soil Type and Sub Soil Type description. Soil type is selected from a dropdown list. The list is that used to define soil types for NVZ purposes.

Each test result can record -

Date, pH, Phosphate, Potash, Magnesium, Sulphur, Copper, Zinc, Calcium, Boron, Organic Matter and Comment. Comment is free space for any remarks you wish.

New entries should normally be made through **Field Events** as described in Chapter 5 Section 1.

New entries can also be recorded by clicking on **New** on the button bar and filling in the detail as required. Click save when finished.

Existing entries can be edited by clicking on the incorrect section and re-entering.

Entries can be deleted completely by clicking on **Delete** on the button bar.

2.3. Limings

Any number of limings can be recorded against a field. These records can be examined and edited by clicking on the **Liming** tab.

	1.0	oll Analysis	Limings	Eelworm	Crops	Operations	Manure	Observati	ons		
Fie	eld:		01								
Г		Date	PH	I	Applied	Comment					ï
5		02/04/2016	10000	5.80	59.0	200041711211724					Ŀ
		1.				1				12	

Each Liming can record -

The Date of the application, the pH Result and amount applied. Comment is free space for any remarks you wish.

New entries should normally be made through Field Events.

New entries can also be recorded by clicking on **New** on the button bar and filling in the detail as required. Click save when finished.

Existing entries can be edited by clicking on the incorrect section and re-entering.

Entries can be deleted completely by clicking on **Delete** on the button bar.

2.4. Eelworm

Any number of Eelworm Tests can be recorded against a field. These records can be examined and edited by clicking on the **Eelworm** button on the options bar.

	Soil Analysis	Limings	Eelworm	<u>C</u> rops	Оре	rations	Manure	Observation	s		
Fie	eld:	01									
Г	Date	Re	sult			Comme	nt			_	1
)	02/09/2014	4 Pas	s								
	•										

Each test result can record -

The Date of the test and the Result. Comment is free space for any remarks you wish.

New entries should normally be made through **Field Events** as described in Chapter 5, Section 3.

New entries can also be recorded by clicking on **New** on the button bar and filling in the detail as required. Click save when finished.

Existing entries can be edited by clicking on the incorrect section and re-entering.

Entries can be deleted completely by clicking on **Delete** on the button bar.

2.5. Crops

This Section gives access to the full cropping record for this field. All the crops are shown as in the screen below.

uncin	Fields										- 0	
ld S	pil Analysis	Limings Eelwa	rm <u>C</u> rops	Operations Manure O	bservations							
Field:		01										
Water		Dry:		< 3 m: 0								
		3-6m: 0		> 6 m: 0								
⊠ 8	igible for Area I	Payments:										
Γ	Date	Harvest Year	Following Crop	Сгор	Variety	Size	2nd Size	IACS Class	Seed Type	Management Option	Expected Yield	Ì
	01/04/2017	2017	Стор	Carrots		11.44	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Other	Certified Seed		0	-
	01/10/2015	2016		Winter Wheat		11.44		Cereals			10	-
	01/05/2015	2015		Ware Potatoes		11.44	.00	Other	Certified Seed	*/	0	
<												>

New

This allows you to create a new crop in this field.

- **Date:** The sowing date for this crop. For continuing crops such as grass enter the 1st January of the Harvest Year.
- Year: This is generally the Year in which the crop will be harvested. It also is the year it is taken into account for IACS purposes. It is possible to have 2 or more crops in the same Year. In this case it may be necessary to adjust IACS Class for one or more of these crops to show correct figures.

Following Crop:

Crop:	The name of the crop you are entering. Either type the crop name or the first letter to select from the drop-down list.
Variety:	The variety of the Crop. Either type the variety name or the first letter to select from the drop-down list. May be blank
Size:	This is the area of the crop. It is generally the nominal area of the field but may be altered to a smaller area to take into account any uncropped area. This is the Area used in the costings and IACS calculation.
2nd Size:	The area of any Secondary Units if they are required.
IACS Class:	This is generally the class associated with the chosen crop.
Seed Type:	Is applied to oilseed rape crops where seed type is a requirement in the record.

Management	Option:	Applied to Grassland crops to define the grazing and cutting regime. Also applies to Set-Aside to define the management regime.
Expected Yie		spected Yield for this crop, based on historic data. Used to adjust owable N for NVZ calculation.
Delay:	Used for NVZ delayed,	Z calculation adjustment, specifies the number of days sowing was
Adjustment:		Z calculation adjustment (pre 2009), where the growing regime is pecific end market.
Cycle:	Specifies the	year of a set-aside cycle.
Harvest Date	This is the dat	te the crop was harvested. Filled in after harvest.
Commonte	This can be u	and for any commont you wish to account with this one

Comment: This can be used for any comment you wish to associate with this crop.

Click Save when you are happy with your entry.

Editing

Any of the detail as entered above can be edited. Clicking on the incorrect part of the entry allows you to change it. Again, click save when you are happy with your entry.

Delete

Should you wish to remove one of the crops you may do so by Highlighting it and clicking on **Delete**. You cannot delete a crop which has operations (planned or completed) or observations entered in the record. These would have to be deleted individually beforehand. Once all these have been deleted you can now delete the crop, you will be asked to confirm the deletion before it goes.

Watercourses

The Number of **watercourses** bounding this field is also maintained in this section. For LERAP purposes you are required to enter this. There are four class of watercourses depending on their width.

Eligible for Area Payments

Sets whether the field is eligible for AAPS or not.

2. 6. **Operations**.

This gives access to all the operations recorded on this field. These can be either planned or completed.

I S	oil Analysis Lir	nings Eelworm Crops Operations	Manure Ob	servations								
ield:	0	1										
Crop:	2	2016 Winter Wheat 🛛 🗸 🗸										
Size:	1	1.44 Ha:	Man	gin: 13900	89							
Type:	C) Planned:	/Ha	1215.1	1							
	Date	Item Name	Rate	Quantity	Cost	Time	Person	Water Rate	Spray Quality	Wind Direction	Growth Stage	^
۶.	14/10/2015	Robigus (Home Saved)	174.825	1999.998	500.00						0	
	14/10/2015	0-24-24	218.978	2505.108	776.58						0	
	15/04/2016	Ammonium Sulphate	500.000	5720.000	926.64						0	
	25/04/2016	Opus	.400	4.576	116.69	10.00	A Cochrane	200	Medium	SW	1	٧
	25/04/2016	Manganese Sulphate	3.000	34.320	16.61	10.00	A Cochrane	200	Medium	SW	1	٧
	25/04/2016	Homony SX	80.000	915.200	134.99	10.00	A Cochrane	200	Medium	SW	1	٧
	10/05/2016	Splice	1.250	14.300	281.71	10.00	A Cochrane	200	Medium	w	3	E
	10/05/2016	Moddus	.150	1.716	51.48	10.00	A Cochrane	200	Medium	w	3	C
	10/05/2016	Flexity	.200	2.288	84.66	10.00	A Cochrane	200	Medium	w	3	0
<	10/05/2016	Chlomequat	1.750	20.020	21.82	10.00	A Cochrane	200	Medium	w	3) >

The crop required can be selected from the drop-down list. The operations for that crop are then displayed.

Planned or completed can then be selected.

All operations are shown in chronological order. Scrolling up and down and side to side shows all the detail of each application. The Summary at the top shows the Current margin for this field in total and by Ha. Negative figures indicate that costs have been incurred which are greater than any outputs entered.

New Operations can be entered here by clicking **New** and entering the detail. Stock will be updated accordingly. This is not the normal entry routine for completed jobs.

This is however the section where **amendments** are done to entries already made. Highlight the section of the operation which is wrong and re-enter it. Stock records will be updated accordingly.

Any operation can be deleted by highlighting it and clicking on the **Delete** button. Stock records are again updated accordingly.

Planned operations are automatically removed by entering completed operations to the same field, same crop and with the same stock item. This usually means that anything left in the planned section at the end of the season didn't happen or a different stock item was used.

2.7. Manure

This section records the applications of slurries and FYM on a particular crop.

Field	Soil Analysis	Limings	Eelworm	<u>Crops</u> <u>C</u>)perations	Manure	Observa	ations	I.			
Fiel	ld:	01										
Cro	op:	2017 Ca	arrots		~		Buffers:	0.2	1			
Siz	e:	11.44	Ha:				Slopes:	0.0	0			
	NVZ Rules App	oly:					Other:	0.0	0			
Γ	Date	Ma	anure				Rate		Quantity	Season	Comment	
•	05/03/201	5 Lay	er Manure - [Over 24 hou	ırs]		6	.233	70.000	Spring		
	•											

NVZ Rules Apply: Select if NVZ rules apply to this field.

Buffers, Slopes and Other are areas which are not spreadable and are deducted from the field area in some of the NVZ reporting.

New Operations may be entered here by clicking **New** and entering the detail. This is not the normal entry routine for completed jobs, they are generally entered in field operations.

This is however the section where **amendments** are done to entries already made. Highlight the section of the operation which is wrong and re-enter it. Stock records will be updated accordingly.

Any operation can be deleted by highlighting it and clicking on the **Delete** button.

2.8. **Observations**

The observations recorded against any crop can be accessed by highlighting the crop and clicking the **Observation** tab.

	1.74	oil Analysis	Limings	Eelworm	Crops	Upera	aons	Manure	Ubs	ervations					
F	Field:		01												
C	Crop:		2016 V	Vinter Wheat		\sim									
S	Size:		11.44	Ha:											
Г		Date	0	bservation		(Comme	nt			_			_	n.
	*	02/06/2016	CONCORDED IN	evere Mildew				art of Fiel	d						
		Notani and Anna Anna Anna Anna Anna Anna Anna							C. 1						
- 1												.1			
- 1															
- 1															
- 1															
- 1															
- 1															

New observations can be entered here by clicking on the **New** button. The details can be entered as required.

New observations are normally entered through the Field Events, Observation section.

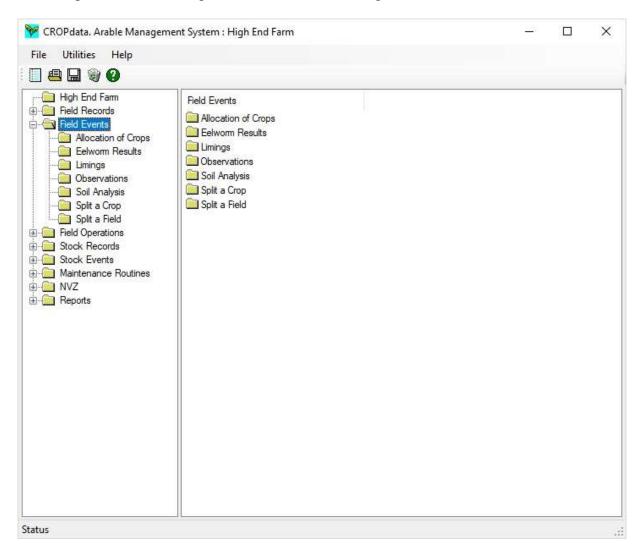
New entries can also be recorded by clicking on **New** on the button bar and filling in the detail as required. Click save when finished.

Existing entries can be edited by clicking on the incorrect section and re-entering.

Any observation can be deleted by highlighting it and clicking **Delete**.

CHAPTER 3 FIELD EVENTS

This Chapter describes the option available for recording field events.



3. 1. Allocation of Crops

This allows for the rapid entry of crops into fields. It is generally a once a year task although if a field is double cropped a second entry will have to made.

It is best to have created all the new sub-fields you will require for the new year before commencing this process.

Date	e:	01/09/2017 ~				Type:	Cereals		~
Crop) :	Winter Wheat		~ Add	:		1		
Vari	ety:	Rogibus		~ Add	:				
Corr	im <mark>ent</mark> :								
ields				1123	vest Year:		elected: Av	vailable: To	tal:
	By Holding:	High End Farm		201	And address of the Andrews of the An	Following Crop:	2	33	tar: 35
Γ	Field Na	me	SF	Include	Area to be Allocated	Crop Area	Previous Cro	p	^
•	01				11.44	11.44	Carrots		
	02				10.86	10.86	Spring Barley	1	
	03				7.89	7.89	Carrots		
	04				13.88	13.88	Spring Barley	8	
	05				10.71	10.71	Spring Barley	1	
	06				14.96	14.96	Spring Barley		
	07				1.49	1.49	Grass over 5	years	
	08				11.20	11.20	Spring Barley	2	
	09				0.89	0.89	Grass over 5	years	
	10				2.99	2.99	Grass under 5	vears	~

Enter the **Date** that work is expected to commence on this crop, usually the sowing date.

Select the **Crop** and **Variety**. **Type** is the pre-set IACS definition but can be changed if required. Comment can be entered if you wish.

Enter the **Year** for which you are entering the crops. Generally, the year the crop will be harvested. This is also the IACS year that the crop will be calculated in.

Now Highlight all the fields growing this crop and variety.

Crop Area can be amended to the planted area. This may be less than the nominal area of the field. Any remaining area may then be allocated to a second crop.

Area to be Allocated is the area of the field not already in crop for the selected year.

Clicking following crop will allow you to allocate a second, following crop for the same year. If the field has previously been allocated to more than one crop the crop with the larges area will be selected as the previous crop.

Click save and this will be recorded in the field record.

You will be presented with the details screen. Depending on the crop type being saved various options are available.

Seed Type:	Certified Seed \checkmark
Management:	(Please Select)
Expected Yield:	10.00 Tonnes / Ha:
Adjustment:	(Please Select) ~ Add:

Click OK when details are correct.

The saved fields will disappear off the list to prevent them having two crops accidentally entered. If all the fields are done at once, the only fields left on the list at the end are those which are no longer current, e.g. old sub-fields.

Should some of the fields have an area of crop which is less than the O.S. area of the field this can be adjusted in the field record.

3. 2.Eelworm Test

Results of eelworm tests are recorded here.

Details						
Date:	03/04/2018 🗸					
Result:	Pass	\sim				
Comment:						
Fields				Selected	: Available:	Total:
	ALC: NOTE: THE		Non Current:	1		
By Holding	: High End Farm	~			1 34	35
Field Nam	e		SF Area			
01			11.44			~
02			10.86			
03			7.89			
04			13.88			
05			10.71			
06			14.96			
07			1.49			
08			11.20			
09			.89			
10			2.99			
11			10.77			
12			7.80			
13			12.79			
14			11.08			
15			4.81			
			14.20			1000
16 17			14.15			V

Enter the date of the test.

Pick the field by clicking on it to highlight.

Enter the result. (Pass, Fail, Retest Required, Resistant Variety, Order Imposed.)

Comment can be anything you wish.

Click Save to record the entry.

3.3. Liming

Lime applications are entered here.

Details							
Date:	03/04/2017 🗸						
PH:	5.8			Applied:	4.5	Ton	nes / Ha:
Comment:						72.	
Fields							÷
By Holding	High End Farm	~	Non Current:		Selected: 1	Available: 34	Total: 35
Field Name	R.		SF Area				
01			11.44				~
02			10.86				
03			7.89				
04			13.88				
05			10.71				
06			14.96				
07			1.49				
08			11.20				
09			.89				
10			2.99				
11			10.77				
12			7.80				
13			12.79				
14			11.08				
15			4.81				
16			14.20				1000
17			14.15				~

Enter the date of the application.

Pick the field or fields by clicking on it to highlight.

Enter the PH if known and the Rate per Ha and any Comment if required.

Click save to record.

3.4. Obervations

Any observations can be recorded here.

Date:	18/06/2017 ~					
		_				
Observation:	Severe Mildew	×.	Add:			
Comment:						
ields						
1000			Harvest	Year	Selected: Available: T	otal:
By Holding:	High End Farm		2017	~	2 33	35
Field Name	1		SF	Area	Crop	
01				11.44	Carrots	~
02				10.86	Spring Barley	
03				7.89	Carrots	
04				13.88	Spring Barley	
05				10.71	Spring Barley	
06				14.96	Spring Barley	
07				1.49	Grass over 5 years	
08				11.20	Spring Barley	
09				.89	Grass over 5 years	
10				2.99	Grass under 5 years	
11				10.77	Spring Barley	
12				7.80	Ware Potatoes	
13				12.79	Spring Barley	
14				11.08	Ware Potatoes	
15				4.81	Grass under 5 years	
16				14.20		-
17				14.15	Grass over 5 years	~

Set the **Date** that the observations are to be recorded on.

Pick the Observation Code that you wish to use and enter any comment.

Select **Holding** to get a list of fields on that particular holding. Do not select holding to get all the fields.

Now Select the Fields that you wish to record the observation against by clicking on them to highlight. Click on **Save** to record the observation.

3.5. Soil Analysis

Used to enter soil analysis results.

tails Date Items Comr	All		~									
elds	v Holding: High End Farm			Show Fiel		Selected:	Available: Ti 35	stal: 35				
	Field Name	SF	PH	Phosphate	Potash	Magnesium	Sulphur	Manganese	Copper	Zinc	Boron	^
•	01		0.00									
	02		0.00									
	03		0.00						1			
	04		0.00									
	05		0.00									
	06		0.00									
	07		0.00								1	
	08		0.00									
	09		0.00									
	10	-	0.00									
	11		0.00									~
<	dana										7%) (1)	>

Enter the **Date** of the soil analysis.

Use Items if only one element is to be recorded.

Select **Show Fields** if you wish a list of fields to be shown.

Select **Holding** to get a list of fields on that particular holding. Do not select holding to get all the fields.

Select the first field by clicking on it to highlight it. Enter the analysis in the appropriate boxes and click Save. The Field will disappear from the list and you can highlight the next field.

Click Exit when all the entries have been made and saved.

3. 6. Split a Crop

3.7. Split a Field

Used to split a field after work has started on it.

etails	-		S						
✓ 1:	A7	4.70] 4:	0.00		
2:	B7	3.10	Ha:] 5:	0.00	Ha:	
3:		0.00] 6:	0.00		
elds				Harvest	Venn		Selected: Av	ailable:	Total:
🔲 By H	Holding:	High End Farm	0	2017	v	[1	34	35
Field	Name			SF	Area	Crop			
01				ST. 61	11.44	200			~
02					10.86		Barlev		
03						Carrots			
04					13.88	Spring H	Barlev		
05						Spring H	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
06					14.96	Spring H	Barley		
07					1.49		ver 5 years		
08					11.20	Spring H	Barley		
09					.89	Grass ov	ver 5 years		
10					2.99	Grass un	nder 5 years	3	
11					10.77	Spring H	Barley		
12					7.80	Ware Pot	tatoes		
13					12.79	Spring H	Barley		
14					Artista Artista	Ware Pot			
15							nder 5 years		
16							nder 5 years	3	150.0
17					14.15	Grass ov	ver 5 years	3	~

Select **Holding** to get a list of fields on that particular holding. Do not select holding to get all the fields.

Select the Harvest Year.

Select the field to split. Tick the number of splits to make by ticking the appropriate number of boxes.

Enter the identifier for each sub-field and the area for each.

Click Save.

CHAPTER 4

FIELD OPERATIONS

🖉 CROPdata. Arable Manageme	nt System : High End Farm	<u> </u>	×
File Utilities Help			
] 🚇 🔛 🥡 😮			
High End Fam Field Records Field Operations Field Operations Completed Operations Stock Records Stock Events Maintenance Routines NVZ Reports	Completed Operations		
tus	Ц <u>.</u>		

Both these sections are operated by exactly the same routines. They will therefore both be covered in this chapter of the manual.

The only difference when using them is the way the **Stock** is handled by the entries. In **Planned** operations the stock is **Committed**. Committed stock is subtracted from the stock on hand to leave available stock. It does not stop the system from using stock in completed operations, it just gives a guide to the current and future position. **Completed** operations actually reduce the stock holding.

There are five ways of entering detail onto fields:

1. New Operations.	This allows for individual operations to be entered onto individual fields also for the entry of sales from fields.
2. One Crop Operations.	This allows for rapid entry of the same operation to many fields growing the same crop or variety.
3. Tank Mixes	This Allows for the entry of more than one stock item to a field at any one time also for rapid entry of outputs over many fields growing the same crop or variety.
4. Re-Cost Operations	It is not unusual to be unsure of the cost of an item when it is used. This allows you to easily change the cost of operations after they have been planned or completed.
5. Manure Operations	Used to enter applications of FYM & Slurry.

4.1. New Operations

This is where you can enter single operations onto fields. All Sprays, Fertiliser, Seeds, Tasks and Yields are available through this routine.

etails							-
Date:	03/04/2017 ~			0	Rate:	213.220	Kgs/Ha
Category:	Seed	\sim		۲	Quantity:	3000.000	Kgs:
Item:	Propino		~	Add:	Price:	430.00	Tonnes
Comment:					Stock:	1.000	Tonnes
elds							-
	Democratic		Harvest Year:		elected:	Available:	Total:
By Holding:	High End Farm		2017 ~ l	Planned:	2	33	35
Field Name			SF Area	a Crop		1	-
13			12.79	9 Spring Ba	rley		^
14			11.08	8 Ware Pota	toes		
15			4.81	L Grass und	er 5 ye	ars	
16			14.20) Grass und	er 5 ye	ars	
17			14.15	5 Grass ove	r 5 yea	rs	
18			6.14	4 Grass und	er 5 ye	ars	
ENO1			12.39	9 Ware Pota	toes		
EN02			10.43	3 Spring Ba	rley		
EN03			8.01	7 Spring Ba	rley		
EN04			.41	L Grass ove	r 5 yea	rs	
EN05			15.79	9 Spring Ba	rley		
EN06			11.18	8 Spring Ba	rley		
EN07			A 6.78	Grass und	er 5 ye	ars	
EN07			B 6.00) Spring Ba	rley		
ENOS			10.32	2 Grass und	er 5 ye	ars	Y

Enter the **Date** the operation was done.

Pick the **Category** you wish from the list. The list is obtained by clicking on the small box with the arrow at the end of the Category field. The individual **Item** from within that category is selected in the same way. Selecting **None** as the Category give a list of all Items regardless of category. (Stock can be used before it is entered in Stock Receipts, the stock level will run at a negative level.)

Select **Rate** or **Total**. Only one of these options can be selected. **Rate** would be entered as the Rate per Hectare at which the item was applied. **Total** is the total amount of the item used for the applications. Using **Total** gives a more accurate control of Stock.

Comment can be anything you wish to record against the application.

Select **Holding** to get a list of fields on that particular holding. Do not select holding to get all the fields.

Select the Harvest Year. The default Harvest Year, as set in the Business Parameters, is displayed.

Selecting Planned will show any planned operations for this item. These can then be upgraded to completed and removed from planned.

Each field will have several crops after a number of years. This Year determines which crop the

application will be applied to. Only fields with crops allocated in the Year will appear on the list. If a field has two crops in the same year, the field will be displayed twice. The crop with the earliest commencement date will be displayed first.

Select the fields for the application by clicking on them to highlight them. The full list of fields can scroll up and down using the up and down arrows at the right side of the field list. If you have selected a Rate for the application, the total will build up as the fields are selected. If you have selected a Total, the rate will adjust as fields are selected.

If you wish to select all the Fields on the list click **Select All** on the Bottom Button Bar. Individual fields can then be deselected by clicking on them to remove the highlight.

On the Bottom Button Bar Click **Save** to record the entry.

	1		1221	Jimmy SMITH		
Time:	10.20		Person:	Jimmy SM	ITH	
Water Rate:	200		Spray Quality:	Medium		
Wind Direction:	SW		Growth Stage:	2		
Reason:	Weed Supres	ssion				
rap						
Date:	01/01/1980	~				
Completed By:						
Dose:	1	~				
Buffer Zones:	1 m: 0	2 m	0	3 m: [0	

If Sprays are selected you will be presented with the details screen.

Enter the required detail.

Click Exit.

The fields will disappear off the list once saved leaving the others for further entries. If you want a complete list of fields again click the **Refresh** Button on the Bottom Button Bar. If you only want the list of the saved fields only returned click the **Restore** Button on the Bottom Button Bar.

Once all the entries have been recorded click Exit on the Bottom Button Bar.

4.2. One Crop Operation

This section allows for the same function as in **5.1.** above. This options however gives the facility to pick only the fields growing the same crop in a particular year. A particular variety of the selected crop can then be chosen. It gives a rapid entry facility where an application is applied over all fields growing a particular crop or variety.

Item: Ammonium Nitrate Add: Price: 190 Tonr Comment: Stock: 0.932 Tonr Fields Crop: Spring Barley Harvest Year: Selected: Available: Total Variety: All 2017 Planned: 12 0 Field Name SF Area Crop 02 10.86 Spring Barley 04 13.88 Spring Barley 05 10.71 Spring Barley	Item: Ammonium Nitrate Add: Price: 190 Tonnes. Comment: Stock: 0.932 Tonnes. ields Crop: Spring Barley Harvest Year: Selected: Available: Total: Variety: All 2017 Planned: 12 0 12 Field Name SF Area Crop 0 12 0 12 02 10.86 Spring Barley O 0 0 0 0 04 3.88 Spring Barley O 0 0 0 0 0 05 10.71 Spring Barley O 0 <td< th=""></td<>
Comment: Stock: 0.932 Tonr Fields Crop: Spring Barley Harvest Year: Selected: Available: Total Variety: All 2017 Planned: 12 0	Comment: Stock: 0.932 Tonnes. ields Crop: Spring Barley Harvest Year: Selected: Available: Total: Variety: All 2017 Planned: 12 0 12 Field Name SF Area Crop 0 12 0 12 02 10.96 Spring Barley 0 0 0 0 0 04 03.88 Spring Barley 0
Comment: Stock: 0.932 Tonr Fields Crop: Spring Barley Harvest Year: Selected: Available: Total Variety: All 2017 Planned: 12 0	Comment: Stock: 0.932 Tonnes. ields Crop: Spring Barley Harvest Year: Selected: Available: Total: Variety: All 2017 Planned: 12 0 12 Field Name SF Area Crop 0 12 0 12 02 10.96 Spring Barley 0 0 0 0 0 04 03.88 Spring Barley 0
Fields Crop: Spring Barley Harvest Year: Selected: Available: Total Variety: All 2017 Planned: 12 0 Field Name SF Area Crop 02 10.86 Spring Barley 04 13.88 Spring Barley 05 10.71 Spring Barley	ields Crop: Spring Barley Harvest Year: Selected: Available: Total: Variety: All 2017 Planned: 12 0 12 Field Name SF Area Crop 0 12 0 12 02 10.86 Spring Barley 0 0 0 0 0 04 13.88 Spring Barley 0
Crop: Spring Barley Harvest Year: Selected: Available: Total Variety: All 2017 Planned: 12 0 Field Name SF Area Crop 02 10.86 Spring Barley 04 13.88 Spring Barley 05 10.71 Spring Barley	Crop: Spring Barley Harvest Year: Selected: Available: Total: Variety: All 2017 Planned: 12 0 12 Field Name SF Area Crop 0 12 0 12 02 10.86 Spring Barley 0 0 0 0 0 04 13.88 Spring Barley 0 0 0 0 0 0 0 05 10.71 Spring Barley 0
Variety: All Z017 Planned: 12 0 Field Name SF Area Crop 02 10.86 Spring Barley 04 13.88 Spring Barley 05 10.71 Spring Barley	Variety: All Z017 Planned: 12 0 12 Field Name SF Area Crop 02 10.86 Spring Barley 0 04 13.88 Spring Barley 0 05 10.71 Spring Barley 0 06 14.96 Spring Barley 0 08 11.20 Spring Barley 0 11 10.77 Spring Barley 13 13 12.79 Spring Barley EN02 10.43 Spring Barley
Field Name SF Area Crop 02 10.86 Spring Barley 04 13.88 Spring Barley 05 10.71 Spring Barley	Field Name SF Area Crop 02 10.86 Spring Barley 0 04 13.88 Spring Barley 0 05 10.71 Spring Barley 0 06 14.96 Spring Barley 0 08 11.20 Spring Barley 1 10.77 Spring Barley 13 12.79 Spring Barley EN02 10.43 Spring Barley 1
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Enter the **Date** the operation was done.

Pick the **Category** of input you wish from the list. The list is obtained by clicking on the small box with the arrow at the end of the Category field. The individual **Item** from within that category is selected in the same way. Selecting **None** as the Category gives a list of all Items regardless of category. (Stock can be used before it is entered in Stock Receipts, the stock level will run at a negative level.)

Select **Rate** or **Total**. Only one of these options can be selected. **Rate** would be entered as the Rate per Hectare at which the item was applied. **Total** is the total amount of the item used for the applications. Using **Total** gives a more accurate control of Stock.

Comment can be anything you wish to record against the application.

Select the **Crop** you wish to make the application on. All the fields growing that crop in the selected year will be listed. All is initially displayed in the **Variety** box. If you wish just one variety of the crop select it in the **Variety** box and only fields growing that variety of the crop will be displayed.

Select the Harvest Year. The default Harvest Year, as set in the Business Parameters, is displayed.

Select the fields for the application by clicking on them to highlight them. The full list of fields can scroll up and down using the up and down arrows at the right side of the field list. If you have selected a Rate for the application, the total will build up as the fields are selected. If you have selected a Total the rate will adjust as fields are selected.

If you wish to select all the Fields on the list click **Select All** on the Bottom Button Bar. Individual fields can be then be de-selected by clicking on them to remove the highlight.

On the Bottom Button Bar Click Save to record the entry.

Time:	10.20	Person:	Jimmy SMITH
Water Rate:	200	Spray Quality:	Medium
Wind Direction:	SW	Growth Stage:	2
Reason:	Weed Supression		
erap			
Date:	01/01/1980 🗸		
Completed By:			
Dose:		~	

If Sprays are selected you will be presented with the details screen.

Enter the required detail.

Click Exit.

The fields will disappear off the list once saved leaving the others for further entries. If you want a complete list of fields again click the **Refresh** Button on the Bottom Button Bar. If you only want the list of the saved fields only returned click the **Restore** Button on the Bottom Button Bar.

Once all the entries have been recorded click Exit on the Bottom Button Bar.

4.3. Tank Mixes

This section allows for the entry of more than one operation in a selected field at a time. For example, three or four sprays can be applied at differing rates as one entry.

tails Date:	03/05/2017 v								
ltem		Rate Applies	Rate	Quantity	Units	Price	Stock	Units	
Flexity		\checkmark	.500	30.805	Litres	37.00	-30.285	Litres	
Chlormequat			1.000	61.610	Litres	1.09	-59.610	Litres	
Hormony SX			100.000	6161.000	Grams	59.00	-15.757	Boxes	
0.0000 10100 (0 100.00		_	l Alexandra - 1			1+ 1+ 0+14/1+4	100000000	1	
Comment:									
lds	Link End Eam		Providence of the	st Year:		Selected			
lds] By Holding:	High End Farm		2017	~		-		e: Tota 30	al: 3!
lds] By Holding: Field Name	High End Farm		Providence of the	~ Area	Crop				3
lds] By Holding: Field Name 01	High End Farm		2017	Area 11.44	Carrot	:5			
lds] By Holding: Field Name	High End Farm		2017	~ Area	Carrot	s Barley			3
lds] By Holding: Field Name 01 02 03 04	High End Farm		2017	Area 11.44 10.86 7.89 13.88	Carrot Spring Carrot Spring	:s Barley :s Barley			3
ds By Holding: Field Name 01 02 03 04 05	High End Farm		2017	Area 11.44 10.86 7.89 13.88 10.71	Carrot Spring Carrot Spring Spring	s Barley Barley Barley Barley Barley			3
ds By Holding: Field Name 01 02 03 04 05 06	High End Farm		2017	Area 11.44 10.86 7.89 13.88 10.71 14.96	Carrot Spring Carrot Spring Spring	.5 Barley Barley Barley Barley Barley	5]		3
ds By Holding: Field Name 01 02 03 04 05	High End Farm		2017	Area 11.44 10.86 7.89 13.88 10.71	Carrot Spring Carrot Spring Spring Grass	s Barley Barley Barley Barley Barley	5]		3

Enter the **Date** the operation was done.

Under **Item** type the first letter or two of the required spray. Select the required one from the list.

Select **Rate** Applies. **Rate** should be entered as the Rate per Hectare at which the item was applied. **Total** is the total amount of the item used for the applications. Using **Total** gives a more accurate control of Stock.

Repeat until you selected all the required sprays for the tank mix and set their rates.

Comment can be anything you wish to record against the application.

Select **Holding** to get a list of fields on that particular holding. Do not select holding to get all the fields.

Select the **Harvest Year**. The default **Harvest Year**, as set in the Business Parameters, is displayed.

Select the fields for the application by clicking on them to highlight them. The full list of fields can scroll up and down using the up and down arrows at the right side of the field list. If you have selected a Rate for the application, the total will build up as the fields are selected. If you have selected a Total the rate will adjust as fields are selected.

If you wish to select all the Fields on the list click **Select All** on the Bottom Button Bar. Individual fields can be then be de-selected by clicking on them to remove the highlight.

On the Bottom Button Bar Click Save to record the entry.

Time:				Person:		
Water Rate:	-		=	Spray Quality:	-	
Wind Direction:	1		_	Growth Stage:	0	bil.
Reason:				-		
erap	100					
	0.4.10.4	/1980 、	3			
Date:	01/01	/1300				
Date: Completed By:	01/01	/1300 1				
		/1300 1				
Completed By:	01/01	0	_	0	3 m:	0

If Sprays are selected you will be presented with the details screen.

Enter the required detail.

Click Exit.

The fields will disappear off the list once saved leaving the others for further entries. If you want a complete list of fields again click the **Refresh** Button on the Bottom Button Bar. If you only want the list of the saved fields only returned click the **Restore** Button on the Bottom Button Bar.

Once all the entries have been recorded click Exit on the Bottom Button Bar.

4.4. **Re-Cost Operations**

This section allows for the adjustment of the cost of an operation or range of operations after they have been entered. It is not uncommon to discover that the cost of an Item has changed when the invoice comes in, changes can be made quickly and easily here.

Details Start:	03/04/2017 ~				End	ł: 03/	/06/2017 、	-
Category:	Sprays	~						
Item:	Flexity			~	Pric	e:	39.00	Litres:
Fields					c	elected:	Available:	Total:
By Holding:	High End Farm	0				5	O	5
Field Name			SF	Date	Area	Crop		
02				03/05/17	10.86		Barley	
04 05				03/05/17 03/05/17		Spring Spring		
06				03/05/17		Spring		
08				03/05/17		Spring		

Enter the dates between which the application that you wish to re-cost were made. **Start** for the Beginning and **End** for the end.

Select the **Category** of the item to be re-costed and the **Item** itself.

The current Adjusted Stock Price will be displayed, this can be amended to the Price you wish.

Select **Holding** for the fields on that holding or **Individual** for all fields in the business. The fields where this Item has been applied between your selected dates will be displayed. If a field has had more than one application of the item in the date range it will appear the appropriate number times in date order.

Select the fields for the adjustment by clicking on them to highlight them. The full list of fields can scroll up and down using the up and down arrows at the right side of the field list. If you wish to select all the Fields on the list click **Select All** on the Bottom Button Bar. Individual fields can be then be deselected by clicking on them to remove the highlight.

On the Bottom Button Bar Click Save to record the entry.

The fields will disappear off the list once saved leaving the others for further entries. If you want a complete list of fields again click the **Refresh** Button on the Bottom Button Bar.

Once all the entries have been recorded click Exit on the Bottom Button Bar.

4.5. Manure Operations

Date:	03/03/2017 ~				O Rate:	5.874	T/Ha:
	Press.	_				000.000	
Season:	Spring	~			Quantity	: 300.000	Tonnes:
Manure:	Cattle Slumy - Surface	Applied (6	5%) - [Not	Incorporate	ed]		113 ~
Comment:		1000					
Fields	h						
			Harves	t Year:	Selected:	Available:	Total:
By Holding:	High End Farm		2017	~	9	26	35
Field Name			SF	Area	Crop		-
04				13.64	Spring Barley		^
05				10.71	Spring Barley		
06				13.91	Spring Barley		
07				1.49	Grass over 5 ye	ars	
08				10.13	Spring Barley		
09				.89	Grass over 5 ye	ars	
10				2.79	Grass under 5 y	ears	
11				10.48	Spring Barley		
12				7.56	Ware Potatoes		
13				12.79	Spring Barley		
14				10.63	Ware Potatoes		
15				4.81	Grass under 5 y	ears	
16				13.71	Grass under 5 y	ears	
17				14.15	Grass over 5 ye	ars	
18				6.14	Grass under 5 y	ears	×

This section is used to record the application of FYM and slurry onto fields.

Enter the date of the application.

Enter either a rate per Ha of the application or the total amount applied over the fields you are selecting. If a rate is selected the total is calculated, if the total is entered the rate is calculated.

Select the season for the application.

Select the type of manure being applied.

Comment can be entered as required.

If holding is selected then only fields at that holding will be selected for display. If holding is not selected then all fields within the business will be displayed regardless of holding.

The Year determines which crops are displayed in the fields. Entering 2017 will display the crops grown in the fields in that IACS year, entering 2018 will display the crops grown in that year.

Select all the fields you wish to record this application against.

Click Save to save the application to the records.

CHAPTER 5 STOCK RECORDS

This Section access all the detail of Stock items. Stock items include anything that is costed onto or produced from a field. Fertiliser, Seeds, Sprays, and Tasks (Costed items such as contractor's operations or farm operations) are Costs. Yields (Saleable Production) are items of income to be recorded onto fields.

🗧 CROPdata. Arable Managem	ent System : High End Farm						- 0	×
File Utilities Help								
High End Fam	Item	Category	Sub Category	Units	On Hand	Commit.	Adj. Cost	1
≟ · 🦲 Field Records ≟ · 🦳 Field Events	0-24-24	Fertiliser	Compound	Kgs	.000	.000	310.00	
E Field Operations	12-11-18	Fertiliser		Kgs	4.800	.000	380.00	
Stock Records	20-10-10	Fertiliser	Compound	Kgs	.000	.000	430.00	
All Items	Acumen	Sprays	Fungicide	Litres	12.000	.000	10.23	
Current Items	Adigore	Sprays		Litres	12.000	.000	5.29	
Non Current Items	Ammonium Nitrate	Fertiliser		Kgs	26.000	.000	195.00	
E Stock Events	Ammonium Sulphate	Fertiliser		Kgs	.918	.000	162.00	
Maintenance Routines	Axial	Sprays	Herbicide	Litres	.224	.000	275.00	
🖓 🧰 NVZ	Bravo	Sprays	Fungicide	Litres	2.800	.000	4.35	
🗄 🦳 Reports	CAL	Fertiliser		Kgs	.000	.000	.00	
	Cerone	Sprays	Growth Regulator	Litres	1.300	.000	9.75	
	Chlomequat	Sprays	Growth Regulator	Litres	-59.610	.000	1.09	
	Delibes (Home Saved)	Seed		Kgs	.000	.000	250.00	
	Fandango	Sprays	Fungicide	Litres	1.877	.000	23.60	
	Flexity	Sprays	Fungicide	Litres	-30.285	.000	37.00	
	Folicure	Spravs	Funaicide	Litres	2.689	.000	14.40	1

Each Item which is to be costed onto a field has to be entered here. The screen below is the entry screen, the Bottom Button Bar gives the available options for all stock items. The tabs give access to further information on each Stock item.

New Stock Items should be entered here. Click on the New Button on the Bottom Button Bar and fill in the record as described below. With new records care should be taken to ensure that any existing stock holding is entered both in the **Receipts** Tab and the **Stock on Hand** and **Adjusted Cost** sections of the main record.

Existing items can be edited at any time. Select the item from the drop-down list by clicking on the down arrow at the end of the item line. Alternatively click the **Find** button on the Bottom Button Bar and type in the first few characters of the description. Click **OK** and the nearest item alphabetically will be presented. **Previous** and **Next** Buttons will work back and forwards through the list if you do not get exactly the item you want.

Care should be taken not to upset the Stock Audit by adjusting Stock Holding and Opening Stock Figures.

When you have made all the changes you want click Save to record them.

Do not delete an item once it has been used. It is easiest to make it Non-Current. Non-Current items should have a 0 Stock Holding.

5.1. Stock

Name:	Ammonium Nitrate			~		
Type:	Current	~				
Category:	Fertiliser	~	Add:			
Sub Category:	(Please Select)	~	Add:			
Units:	Kilogrammes	~	Add:			
Standard Size:	1000.00 K	logrammes:				
Description:	Tonnes	~	Add:			
Adjusted Cost:	195.00 T	onnes:				
Stock on Hand:	26.000 T	onnes:				
Committed Stock:	0.000 T	onnes:				
Comment:						
	L					

- Name: This is the name of the stock item. It must be unique. It can made up of any mixture of characters you like.
- Type:This is either Current or Non-Current depending on whether it is a Stock
item which you wish to be available for use or not. If it is Non-Current it
is not available on the lists presented when entering operations.
- **Category:** This defines what type of item it is, Fert, Seed, Spray, Task or Output.
- **Sub Category:** This may for example define Herbicides, Fungicides, etc. within sprays.
- Units: This is the unit in which the item is applied to the Field, i.e. Kilograms for Fertiliser, Litres for Sprays, Hectares for Contract Work, Tonnes for Grain Sales etc.
- Standard Size: This is the number of the above Units that the item is purchased in. Fertilisers are normally purchased in 1000 Kg lots called Tonnes, Sprays can be 5 L cans and so on. This is of importance when entering Stock Receipts, you enter the number of packs and the price per pack, the program will then work out the Unit price.

Sprays may be best entered at their unit size. Chlormequat for instance can come in several pack sizes depending on the manufacturer. Entering at so much per litre when purchasing means you do not need several Stock items for the same Chemical.

Description: The description of the type of pack the item is purchased in. Tonnes for Fertiliser, Cans or Bottles for Sprays, Boxes for Slug pellets etc. When

entering Stock Receipts you are ask for this number as the quantity purchased.

- Adjusted Cost: This is the cost of the Stock on Hand. It is worked out as Stock is Purchased and a weighted average taken with the price of the quantity already in stock. For example, if you have 10 tonnes in stock at $\pounds100$ /tonne when you buy another 20 tonnes at $\pounds110$ / tonne, then the adjusted cost of the new total stock on hand is $\pounds106.67$. This is the price that this new stock on hand will be applied to the fields.
- **Stock on Hand:** This is the Quantity of the stock on hand at the current time. Worked out from Quantities entered through Stock Receipts less the Quantity used as completed operations. Can run as negative values if stock is applied before being entered as a stock receipt.
- **Committed Stock:** The amount of stock which is needed to cover any Planned Operations which have been entered.

Comment: Free space for any use you	wish.
--	-------

5.2. Analysis

Applies to Fertilisers

Name:	Ammonium Nitrate	
Nitrogen:	33.50	
Phosphate:	0.00	
Potash:	0.00	
Sulphur:	0.00	

This allows for the Nitrogen, Phosphate, Potash and Sulphur analysis to be entered. The system can then give total units of N, P, K & S applied to a particular field.

5.3. Seed

Current Items		- □
Stock Analysis	Seed Spray Receipts	
Name:	Ammonium Nitrate	
Treatment: Rate:	0.00	
Grade:		
Producer:		

If the stock item is Seed then the seed details can be entered.

The Seed Treatment, Rate of the Treatment, Grade and producer of the seed can be entered.

5.4. Spray

If the item is a spray then the LERAP category, Active Ingredient and the Harvest Interval can be entered.

Chlormequat							
N/A		~					
Chlormequat C	hloride						
0]						
	N/A Chlormequat C	N/A Chlomequat Chloride	N/A ~ Chlomequat Chloride				

5.5. Receipts

This gives access to the details of stock receipts and opening stock as at the last stock update. This is only available if the Stock Audit function is switched on in the Business Parameters.

Oper	ning Date: [itres: itres:		
	Date	Quantity	Cost	Supplier	
1	23/05/2016	50.000		ACT	
	22/04/2017	70.000	1.15	ACT	
	-				-

The opening Stock on a particular date is recorded here. This is only valid if the Stock Audit is switched on in the Business Parameters. The Opening Stock Date, Adjusted Stock Cost and Stock Quantity on that date are recorded.

The stock audit works from the Opening Date calculating from Opening Stock, usage and receipts to give a current stock holding. This is compared to the Stock on Hand figure. If there is a difference you are warned of the error. Errors usually occur when manual adjustments are made rather than using normal entry routines.

Running the Stock update routine brings the Opening Stock Date forward and updates to the calculated Stock Cost and Stock Holding since the last date. Any errors have to be rectified at this point to the actual Stock Holding and Stock Cost.

This screen only shows the receipts since the last Stock Update.

New receipts can be entered here by clicking on the **New** button on the button bar. New entries are however best entered through the Stock Receipts section.

Any existing entries can be edited by highlighting the incorrect data and re-entering it.

CHAPTER 6 STOCK EVENTS

6.1. Stock receipts

This section allows for the entry of deliveries into Stock. Home produced stock items must also be entered here if the correct record is to be maintained.

	03/02/2017 ~		
Category:	Fertiliser ~		
ltem:	Ammonium Nitrate 🗸 Add:		
Supplier:	ACT]	
Quantity:	32 Tonnes:		
Price:	195.00 Tonnes:		

Enter the **Date** of the receipt.

First pick the **Category** of item being received, either Seed, Fertiliser or Spray.

A list of all the Current Stock items within that category is available in the Item.

Enter the **Supplier** of the new Stock.

Enter the **Quantity** of the Item being received. This is the number of packs as described in the Description of Standard Size in the Stock record i.e. Bottles, Packs, Boxes etc.

Enter the **Cost** per pack of the Item.

Click on **Save** on the Bottom Button Bar to record the receipt. Follow the same routine for each Stock item until all have been entered.

Once all the entries have been made click on exit.

6.2. Stock Update

This section is only available if the Stock Audit is enabled in the Business parameters.

The purpose of this facility is to clear old Stock receipts and to recalculate opening stock on hand and adjusted prices to the chosen date.

Before running this option you should take a Stock Transaction Report. To check for discrepancies between the calculated stock (Opening + Receipts - Usage) and the Stock on Hand figure in the stock record.

Differences usually occur when manual adjustments have been made to stock.

Details Date:	01/01/2018 🗸		
Comment:	Stocktake		
tems			Selected: Available: Total:
By Category:	Fertiliser	~	
Item Name		Units	
0-24-24 12-11-18 20-10-10 Anmonium Ni Anmonium Su CAL Nitrogen		Tonnes Tonnes Tonnes Tonnes Tonnes Tonnes	

Enter the date to Update to. Usually the date of a Stock Take.

Select the category to update. You will be given a list of all items in that category. (Individual gives all items regardless of category.) Items can be select by clicking on them to highlight, click save to update. Should you wish to update all Stock items click **Select**, All the items will be highlighted. Click **Save** to update. Individual items can be taken off the list by Clicking on them to remove the highlight.

After a general stock update it is best to take a stock listing. If the stock shown is not the actual Stock in the Store on the given date then the Stock Item Record has to amended. This can happen when Usage has not been accurately recorded. (Rates may have been used instead of Quantities)

If there are large differences it suggests that something has been missed, either a stock receipt or some completed operation.

CHAPTER 7. NVZ

These lists are required as background for NVZ reporting. They can be amended as required.

7.1. Adjustments

Code:		READ	~			
code.		NUAU	~			
Description:	В	readmaking				
Omit this U	nit Code fro	m Occurrence	es:			

This is a list of circumstances that may cause the amount of nitrogen to be amended when determining the Required Nitrogen in the Fertiliser and Manure Plans. These include specific end markets such as Breadmaking for Wheat or Malting for Barley. Specific disease situations or crop types may also require adjustment.

7. 2.Excreta Code

Code:	B11					
Code:	DIT		~			
Description:	Beef	Suckler (Cow (over 500	kg)		
Туре:	Graz	ing Livest	ock	\sim		
Occupancy:	100.	D0	%:			
		0	kg / year:			
Nitrogen:	83.0					
Nitrogen:		m Occur	ences:			
		om Occur	ences:			
		om Occur	ences:			
		om Occurr	ences:			
		om Occur	ences:			

This contains the typical excreta production for different classes of livestock in a year in units of nitrogen.

7. 3. Excreted Nitrogen

This section contains the detail of the livestock on the holding. From these numbers, and the tables in the NVZ code lists, the Nitrogen production on the farm is calculated.

	Stock Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Animals	Average Animals	Nitrogen per Animal	Total Nitrogen
Þ	Beef Suckler Cow (over 500kg)	40	40	40	40	40	40	40	40	40	38	38	38	474	39.50	83.00	3278.5
	Steer/Heifer (for Slaughter)	40	40	20	20	0	0	0	0	0	0	0	0	120	10.00	50.00	500.0
	Steer/Heifer (3 to 13 months)	40	40	40	40	20	20	20	40	40	40	40	40	420	35.00	34.00	1190.0
	Bull for Breeding (over 25 months)	1	1	1	1	1	1	1	1	1	1	1	1	12	1.00	48.00	48.0
	Calf (up to 3 months)	0	0	0	20	39	39	20	0	0	0	0	0	118	9.83	8.00	78.6

Enter your own livestock types in the screen by selecting from the available types of livestock. These types are held in the NVZ code lists. To get a list of types, type the first few letters under Stock Unit and select from the list. Then enter the quantity under the No. of Units. The Total N is then calculated. This is the total N excreted for all the livestock in Kg/year.

7.4. FYM & Slurry Codes

This section contains the FYM and Slurry Production per week for different classes of livestock as cubic metres.

Code:	B11	~			
Description:	Beef Suckler	Cow (over 500k	g)		
Type:	Non Poultry		~		
Volume:	0.32	m ³ / week:			
Weeks Housed:	22				
Straw Addition Factor:	1.15				
FYM Density Value:	0.70				
Omit this Slurry Cod	le from Occurre	nces:			

Code and Description of the type of animal are set.

Type is Poultry or Non-Poultry

Volume is the production of one animal in M³ per week.

Weeks housed is the assumed no. of weeks this type of animal will be housed. Used to calculate annual production

Straw Addition factor applied to the annual production figure to allow for the increase in volume of added bedding.

FYM Density Value.

7. 5. FYM & Slurry Production

This is used to calculate the likely FYM and Slurry production of the farm for the year.

rear:		0.5.1					
Type: Note:	FYM: O Slumy: Figures below are per Week for 2009 onwards	O Poultry:					
	Stock Unit	No of Animals	Amount	Weeks Housed	Straw Addition Factor	FYM Density Value	Total Amount
Þ	Beef Suckler Cow (under 500kg)	40	.22	28	1.15	.70	404.80
	Steer/Heifer (for Slaughter)	40	.22	20	1.15	.70	289.14
	Steer/Heifer (3 to 13 months)	40	.14	28	1.15	.70	257.60
	Bull for Breeding (over 25 months)	1	.18	28	1.15	.70	8.28
٠							

Select the Year required of Click New to start a new year's calculation.

Select the type of production.

Enter your own livestock types in the screen by selecting from the available types of livestock. These types are held in the FYM and Slurry code lists. To get a list of types, type the first few letters under Stock Unit and select from the list. Then enter the quantity under the No. of Units. The standard figures are entered for the remainder of the entries on the line and the total production amount calculated.

Slurry production is calculated in the same way.

Year:	2016 ~					
Type: Note:	: O FYM: O Slumy: O	Poultry:				
	Stock Unit	No of Animals	Amount	Weeks Housed	Total Amount	
	Dairy Cow (over 9000 litre milk yield)	230	.45	27	2794.50	
۲	Dairy Heifer Replacement (13 months to first	50	.28	27	378.00	

This gives the volume of slurry produced per week.

7. 6. Grassland Management

	-				
Description:	2 or 3 Cut Silage	+ Grazing]		
<u>Site Class:</u>	Nitrogen:	Site Class:	Nitrogen:		
1:	310	4:	280]	
2:	300	5:	270		
3:	290				
Omit this Manag	gement Option from Occu	imences:			

This section holds the detail for different management options applied to grassland.

Code and Description. The different Management option available for Grassland

Site Class and Nitrogen. The standard maximum values of Nitrogen which may be applied to grass under this management regime adjusted for site class values.

7.7. Livestock Manure Types

This section holds the different types of manure.

Code:		
Description:	Pig Sluny	
Adjustment for Au	itumn Applications on Grassland and Winter Oilseed Rape:	
Humose, Peaty a	nd Other Mineral Soils: 5	
Humose, Peaty a	nd Other Mineral Soils: 5	
Humose, Peaty a	nd Other Mineral Soils: 5	
Humose, Peaty a	nd Other Mineral Soils: 5	
Humose, Peaty a	nd Other Mineral Soils: 5	

Adjustments can be set for autumn nitrogen application for some soil types.

		fa:				
Cod	e:	1				
Des	cription:	Pig Slurry				
Note	e: Figures below are	e the 'default' values	Autumn or Winte	r Applications:		
	Date	Value				1
•	01/01/2010	25.00				
-	01/01/2013	45.00				
	01/01/2015	50.00				

Default efficiency values for autumn and winter applications are set. These over-ride other efficiency values.

7. 8. Livestock Manure Codes

This section contains detail of all the different type of Slurry and FYM available for application.

Code:	101 ~		
Description:	Cattle FYM]	
Type:	Solid Manure 🗸 🗸		
Incorporation Time:	Not Incorporated \sim		
Total Nitrogen:	6.0		
Dry Matter:	25.0		
Omit this Livestoc	« Manure Code from Occurrences:		

Total Nitrogen is the Kgs of N per tonne or M^3

Details contains the Percentage of the nitrogen available to the crop based on the season of application on the crop.

Code	ə:	101					
Desc	cription:	Cattle FYN	1				
	Soil Type	w are for 2009 or	Spring	Summer	Autumn	Winter	
•	Humose So Other Miner	and the second s	10	10 10	10	10	
	Peaty Soils		10	10	10	10	
	Sands	2	10	10	10	10	
	Sandy Loan	ns	10	10	10	10	
	Shallow Soi	ils	10	10	10	10	

7.9. Organic Manure Movements

This section records the movements on or off the holding of organic manures.

	Date	Manure	Quantity	Supplier
•	12/03/2015	Broiler/Turkey Litter, Stored Uncovered - [Over 2	600	
	28/04/2016	Broiler/Turkey Litter, Stored Uncovered - [Over 2	500	Oaklands Egg Producers
	09/07/2016	Broiler/Turkey Litter, Stored Uncovered - [Over 2	150	Oaklands Egg Producers
	19/09/2016	Broiler/Turkey Litter, Stored Uncovered - [Over 2	70	Oaklands Egg Producers
	26/11/2016	Broiler/Turkey Litter, Stored Uncovered - [Over 2	65	Oaklands Egg Producers
	09/01/2017	Broiler/Turkey Litter, Stored Uncovered - [Over 2	65	Oaklands Egg Producers
	02/03/2017	Broiler/Turkey Litter, Stored Uncovered - [Over 2	64	Oaklands Egg Producers

Enter the Date of the movement.

To get a list of types of manure, type the first few letter and select from the list. Then enter the quantity in Tonnes or M^3 .

The source or destination should also be entered.

CHAPTER 8 REPORTS

This chapter describes how to get your information out of the system in a form you will find useful.

File Utilities Help Image: Stock Records Image: Stock Records Image: Reports Image: Field Operations Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records Image: Stock Records		
High End Fam Reports Field Records Field Reports Field Events Operation Reports Field Operations Stock Records Stock Revents Code Lists Maintenance Routines Commodity Costings NVZ IACS Reports NVZ NVZ Reports		
Image: Project Signature Image: Project Signature Image: Project Signature		
Operation Reports Stock Reports Code Lists Commodity Costings IACS Reports NVZ Reports Selective Reporting		

The options are,

1. Field Reports:	Reports on the field details, the crops allocated to them and the field events entered.
2. Operation Reports:	Reports of completed and planned operations.
3. Stock Reports:	Reports on Stock Items, availability and usage.
4. Code Lists:	The Codes as set up in the Business Parameters.
5. Commodity Costing:	Reports on where commodities have been used. It allows for costings of inputs with regard to particular Varieties, Crops, Fields, etc.
6. IACS Listing:	Reports on fields by IACS class and forage areas.
7. NVZ Reporting	Reports and calculations for the NVZ regulations
8. Selective Reporting:	Reports set up and defined by you to get the what you want out of the system.

Common to all Screen reports are some Button Controls on the Screen Display.

🛅 Field Summary			
≝≝≈₽⊨××	₩ 1 /2 🏦 🔍 🗸	SAP CRY	STAL REPORTS*
	High End Farm	Date: 03/04/18	
	Field Summary	Page 1 of 2 Harvest Year: 2017	
Current Page No.: 1	Total Page No.: 2	Zoom Factor: 100%	

The button at the top left exports the displayed report to file. This may then be imported into other applications.

Next from the left is the Print button which sends the displayed report to the printer.

The Refresh button (rotating arrows) refreshes the report if the data has been changed.

Next is the copy button.

Next is shown which page of the report is on the screen. At each side are start and end page buttons, inside these are page forward and back buttons.

The Binoculars icon next to it is for searching. For example, it can be used for searching for a particular field or stock item. Click on the Binoculars button, enter the required characters and the first item containing the characters chosen will be outlined, click again and the next item containing those characters will be shown.

The magnification button can be used to change the size of the report shown on the screen or it can be made to fit the page width or the whole page.

The side scroll bar allows you to scroll up and down the report and the bottom scroll bar from side to side.

Reports on the various headings shown in the Options Box can be printed or shown on the screen. The screen displays are exactly the same as the printed reports. Printed reports can be created directly from the screen display. If you have a colour printer the reports will print in the same colours as the screen display.

8.1. Field Reports

Field Reports		- = ×
Field Summary: Detailed Fields: Fields by Crop: Cropping Summary: Limits	 Observations: Soil Analysis: Limings: Eelworm: 	
Start: By Holding: End: Harvest Year:	High End Farm Limits North End 2017 V	
	Digplay Print Exit Help	1

- **Holdings** can be set in the holdings section by putting a tick in the box and selecting start and end holdings. Not selecting holdings means all fields in the business will be shown.
- Year Where available it should be set to the desired year. It initially sets to the current year as set in the Business Parameters.

Limits are available in all the Field reports by clicking on the Limits Button in the Holding Section. The Limits are operated by clicking in the square beside the description. If there is no X in the box the limit is not set. If the limit is set with an X then you can select from the list in the adjacent drop-down list.

Z Type:	Current ~	
] Field:	01	×
Crop:	Carrots 🗸	

- **Type** can be limited to Current or Non-Current fields. This limit is set to Current Fields only by default. This means only current fields are included in reports as standard if you do not change Limits.
- Field can be limit to one particular field.
- **Crop** can be limited to one particular Crop.

Field Summary.

Gives a summary listing of all fields. Be careful only to include current fields to get accurate areas at any point in time. You should set **old Sub-Fields** not in current use to **Non-Current**.

\$ ∰ ≈ ₽ + + →	н 1	/2 船 🔍 🗸				SAP CRYSTAL REF
Fields: Current		High End Farm Field Summary			Ρ	03/04/18 age 1 of 2 /ear: 2017
Field Name 01		.44 Second Are	a Date 01/04/17	Year 2017	Crop / Variety Carrots	Area 11.44
02	10	.86	19/03/17	2017	Spring Barley Concerto	10.86
03	7	.89	01/04/17	2017	Carrots	7.89
04	13	88	19/03/17	2017	Spring Barley Optic	13.88
05	10	.71	19/03/17	2017	Spring Barley	10.71
06	14	.96	19/03/17	2017	Spring Barley	14.96
07	1	.49	01/01/17	2017	Grass over 5 years	1.49
08	11	.20	19/03/17	2017	Spring Barley	11.20
09	0	.89	01/01/17	2017	Grass over 5 years	0.89
10	2	.99	01/01/17	2017	Grass under 5 years	2.99
11	10	.77	19/03/17	2017	Spring Barley	10.77
12	7	.80	19/04/17	2017	Ware Potatoes	7.80
13	12	.79	19/03/17	2017	Spring Barley	12.79

Detailed Fields.

Similar to the summary report but showing more detail.

T			Contraction of the	gh End Farm tailed Fields				: 03/04/18 Page 1 of 3	
	Fields: Current						Harvest	Year: 2017	
	Field Name OS Number 01	<u>SF</u> Map Ref	Area 11.44	Second Area	Date	Year	Crop / Variety	Area	
	NO/31900/4462		11.44	Non LFA	01/04/17	2017	Carrots	11.44	
	02 NO/32054/44779		10.86	Non LFA	19/03/1 <mark>7</mark>	2017	Spring Barley Concerto	10.86	
	03 NO/32314/44353		7.89	Non LFA	01/04/17	2017	Carrots	7.89	
	04 NO/32321/44871		13.88	Non LFA	19/03/17	2017	Spring Barley Optic	13.88	
	05 NO/32459/44530		10.71	Non LFA	19/03/17	2017	Spring Barley	10.71	
	0 <mark>6</mark> NO/32515/45029		14.96	Non LFA	19/03/17	2017	Spring Barley	14.96	
	07 NO/32633/44600		1.49	Non LFA	01/01/17	2017	Grass over 5 years	1.49	
	08 NO/32670/45323		<mark>11.2</mark> 0	Non LFA	19/03/17	2017	Spring Barley	11.20	

Fields by Crop.

A listing of all fields with crops in the selected year totalled by crop and within crop by variety.

😵 📭 । स 🔸 🕨	▶ 1	/2 🎢 🔍 -	- 1			SAP CRYSTAL REP
	. I .	/- 00 -				SAF GITSTAL HE
		High End F			Date: 03/04/18	
		Fields by C	rop		Page 1 of 2	
Fields: Current					Harvest Year: 2017	
Field Name	SF	OS Number	Date	Area Comment		
Carrots	<u></u>					
01		NO/31900/4462	01/04/17	11.44		
03		NO/32314/44353	01/04/17	7.89		
		2		19.33		
Total for Carrots		2		19.33		
Grass over 5 years	5					
07		NO/32633/44600	01/01/17	1.49		
09		NO/32765/44623	01/01/17	0.89		
17		NO/34135/44306	01/01/17	14.15		
EN04 EN14		NO/33008/44350 NO/33816/43447	01/01/17 01/01/17	0.41 29.66		
EN14		10/33616/43447	01/01/17	46.60		
Total for Grass ov	er 5 years	5		46.60		
Grass under 5 yea	irs					
10		NO/32831/44784	01/01/17	2.99		
15		NO/33765/44487	01/01/17	4.81		
16		NO/34017/44732	01/01/17	14.20		
18 EN07	Α	NO/34197/44554 NO/33260/44402	01/01/17 01/01/17	6.14 6.78		
EN08	А	NO/33320/43609	01/01/17	10.32		
EN10		NO/33480/43459	01/01/17	6.04		
EN11		NO/33560/43792	01/01/17	5.91		
EN12		NO/33576/44321	01/01/17	6.07		
EN13		NO/33710/43965	01/01/17	6.97		
EN16		NO/33974/44125	01/01/17	15.45		
		11		85.68		
Total for Grass un	der 5 years	11		85.68		

Operation Reports

8.2.

Dperation Reports		24	×
Reports			
O Planned Operations:	O Job List:		
Completed Operations:	O Job List Summary:		
O Detailed Operations:	O Job Sheets:		
O LERAP Operations:			
Limits			
Start:	High End Farm		
By Holding: End:	North End		
Harvest Year:	2017 ~		
Lerap Category:	A + B 🚽		
	Display Print Exit Help		

- **Holdings** can be set in the holdings section by putting an **X** in the box and selecting start and end holdings. Not selecting holdings means all fields in the business will be shown.
- Year Where available it should be set to the desired year. It initially sets to the current year as set in the Business Parameters.

Limits are available in all the Operation reports by clicking on the **Limits Button** in the Holding Section. The Limits are operated by clicking in the square beside the description. If there is no **X** in the box the limit is not set. If the limit is set with an **X** then you can select from the list in the adjacent drop-down list.

Field:	01		\sim
Crop:	Carrots	~	
Dates:	03/04/2018 🗸 to:	03/04/2018	×
ttem:	0-24-24	~	
Category:	Fertiliser	~	
Code:	Compound	~	

Either field or crop can be selected if one is chosen the other is not available.

Field can be limited to one particular field.
--

Crop can be limited to one particular Crop.

Dates can be limited between two dates.

Only one of the following three can be selected. If one is chosen the other two are unavailable.

Category can be limited to one Stock Category

Code can be limited to one Stock Code

Planned Operations / Completed Operations.

These options show what operations have been entered on to a particular crop or range of crops depending on the limits you set.

🛅 Completed Op		<u>€</u>							SAP C	RYSTAL R	× EPORTS	
	High End Farm Completed Operations					Date: 03/04/18 Page 1 of 9 Harvest Year: 2016				of 9		
	01 Winter Wheat Date Cat Item 14/10/15 FERT 0-24-24 14/10/15 SEED Robigus (Home Saved) 15/04/16 FERT Armonium Sulphate 25/04/16 SPRAY Hormony SX 25/04/16 SPRAY Hormony SX 25/04/16 SPRAY Hormony SX 25/04/16 SPRAY Manganese Sulphate 25/04/16 SPRAY Opus 10/05/16 SPRAY Gravo 10/05/16 SPRAY Flexity 10/05/16 SPRAY Flexity 10/05/16 SPRAY Splice 15/05/16 FERT Armonium Sulphate 29/05/16 SPRAY Bravo 29/05/16 SPRAY Bravo 29/05/16 SPRAY Cerone 29/05/16 SPRAY Opus 01/09/16 SPRAY Glyphosate 12/10/16 YIELD Wheat Sale 13/01/17 YIELD Wheat Sale	Units Kgs Kgs Grams Kgs Litres	11.44 Ha Price N P 0.31 0.0 52.6 0.25 0.0 0.0 0.16105.0 0.0 0.15 0.0 0.0 0.48 0.0 0.0 25.50 0.0 0.0 4.35 0.0 0.0 1.09 0.0 0.0 37.00 0.0 0.0 19.70 0.0 0.0 9.75 0.0 0.0 9.75 0.0 0.0 4.55 0.0 0.0 4.55 0.0 0.0 186.50 0.0 0.0 176.00 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3852.68 336.77 Margin	Output 0.00				
Current Page No.: 1	Total Pag	e No.: 9			Zoon	n Factor	: 100%		£)			

The operations are shown in date order. The fertiliser units, costs and outputs are totalled for each field. Total costs and margins are shown at the end for all fields in the report.

Detailed Operations.

This report gives a listing of all the operations on a field in date order. It differs from the above report in that there is no financial detail but all application detail is shown. All the normal limits can apply if required.

LERAP Operations

This report gives a listing with all operation with LERAP classification.

Job Lists

This gives a report of all the planned operations on each field totalled by stock item. The usual limits can be applied.

Job List Summary

This gives a report of the totals of Stock Items required for the Planned Operations. The usual limits can be applied.

Job Sheets

These sheets can be printed as instruction sheets to operators. They show the detail of the Planned Operations which are to be done. Limits can be applied.

It designed to be given to the operator, filled in by him, and returned to the office for recording onto the computer.

8.3. Stock Reports

This option gives reporting facility on Stock Items and their usage. Limits can be set for a single Stock Category or a range of stock categories.

Stock Reports		<u>(120</u>)	×
Reports			
Stock Items:	O Stock Holdings:		
O Non Stock Items:			
O Stock Transactions:			
O Non Stock Transactions:			
Limits			
Start:	Fertiliser <u>L</u> imits		
End:	Yield		
Г	Di <u>s</u> play <u>P</u> rint E <u>x</u> it <u>H</u> elp		
			,d

Stock Items / Non-Stock Items

A listing of all Stock Items or Non-Stock Items on Record.

Stock Transactions / Non-Stock Transactions

This lists the detail of where and when all the Stock / Non-Stock Items have been used and come from. Only transactions since the last Stock Update date for the particular item will be shown.

Stock Holding

This gives a report of the stock on hand and committed for all current Stock Items.

8.4. Code Lists

Code Listings			
Reports			
Crop Codes:	O Observation Codes:		
O Variety Codes:	O Unit Codes:		
O Operation Categories:	O Holding Codes:		
O Operation Codes:	O Area Codes:		

This section gives the ability to print or view the codes as set up in the Maintenance Routines.

Select the list you wish and click Printer or Screen.

8.5. Commodity Costing

This section shows the commodity costing reporting routine. This gives the facility to identify costs for any input or output, or group of inputs or outputs and where they occurred. It can used on the planned or completed operations

👔 Commodity Costings	-	×
Reports		
By Field:	O By Variety:	
O By Category:	O By Date:	
O By Crop:		
Туре		
O Planned:	Ompleted:	
Limits		
Start:	High End Farm	
By Holding: End:	North End	
Harvest Year:	2017 ~	
Summarised Version:		
	Display Print Exit Help	

They can be analysed by:

- 1. Field Each individual field is shown. The operations applied to it are shown by their group within your selected limits.
- 2. Category Each individual stock category is shown. Usage of each item is shown in detail and sub totalled by item and code.
- 3. Crop The operations applied to each crop are shown. Usage is broken down within each crop by Stock category, then Stock Code and then individual item. Each is totalled.
- 4. Variety As with Crop above but the breakdown is by variety.
- 5. Date Usage is shown by date. What has been used where on each date.

The constraints on the report can be set by limiting to a **holding** if you wish. Click in the Box and select the start and end holding. Use the same holding in start and end if you only want one holding.

Harvest Year selects the year to report on.

Summarised Version Produces a report showing totals of each item rather than each use of each item.

Select the crop year you wish to report on.

Click on **Limits** to set the limits you wish in the box below.

Field:	01		×
Crop:	Carrots	~	
Dates:	03/04/2018 🗸 to:	03/04/2018	×
] Item:	0-24-24	~	
Category:	Fertiliser	~	
Code:	Compound	~	

Either field or crop can be chosen. If one is selected the other is unavailable for limits.

Field. Allows only one field to be selected for the report.

Crop. Allows the report to be limited to one crop.

Dates. Allows the report to be limited to operations between selected dates.

Only one of the remaining three limits can be selected for a particular report. If one is selected the other two are unavailable.

Stock. Only one Stock item is chosen to be reported on.

Category. The report is limited to one Category of Stock, Fert, Seed, Sprays, etc.

Code. The report is limited to one of your Stock Codes, Herbicides, Fungicides, etc.

Two report examples are shown below.

1. Costing by field.

Each Stock Group is shown and each Stock Code within the group is shown and totalled.

	/1	M 🔍 •			SAP CF
		End Farm			Date: 03/04/18
Complete	ed Commo	odity Cost	tings By	Field	Page 1 of 1
Field: 01					Harvest Year: 2016
01 Winter Wheat			11.4		
Fertiliser			11.4	4 na	
Date Item	Rate	Quan	/Unit	Value	/Ha
15/04/16 Ammonium Sulphate		5720.00	0.16	926.64	81.00
15/05/16 Ammonium Sulphate		2860.00	0.16	463.32	40.50
Compound		009000910910910 4020	SEARCHEST GROWINS	1	0.00443420234
Date Item	Rate	Quan	/Unit	Value	/Ha
14/10/15 0-24-24		2505.11	0.31	776.58	67.88
Totals for Compound				776.58	67.88
Totals for Fertiliser				2166.54	189.38
Seed		and the second s			
Date Item	Rate	Quan	/Unit	Value	/Ha
14/10/15 Robigus (Home Saved)	174.83	2000.00	0.25	500.00	43.71
Totals for Seed				500.00	43.71
Sprays					
Fungicide		0	11.2. 12	14.1	
Date Item	Rate	Quan	/Unit	Value	/Ha
25/04/16 Opus	0.40	4.58	25.50	116.69	10.20
10/05/16 Bravo	1.00	11.44	4.35	49.76	4.35
10/05/16 Flexity	0.20	2.29	37.00	84.66	7.40
10/05/16 Moddus 10/05/16 Splice	0.15	1.72 14.30	30.00 19.70	51.48 281.71	4.50 24.63
29/05/16 Bravo	1.00	14.50	4.35	49.76	4.35
29/05/16 Opus	0.75	8.58	25.50	218.79	4.35
Totals for Fungicide	0.15	0.00	23.30	852.85	74.55
Growth Regulator				002.00	14.00
Date Item	Rate	Quan	/Unit	Value	/Ha
10/05/16 Chlormeguat	1.75	20.02	1.09	21.82	1.91
29/05/16 Cerone	0.50	5.72	9.75	55.77	4.88
Totals for Growth Regulator	0.00	J.1 E		77.59	6.78
Herbicide					
Date Item	Rate	Quan	/Unit	Value	/Ha
25/04/16 Hormony SX	80.00		0.15	134.99	11.80
01/09/16 Glyphosate	2.00		4.55	104.10	9.10
Totals for Herbicide	776.817		9637370	239.09	20.90
Trace Elements					
Date Item	Rate	Quan	/Unit	Value	/Ha
25/04/16 Manganese Sulphate	3.00		0.48	16.61	1.45
Totals for Trace Elements				16.61	1.45

2. Cost by Crop, Winter Wheat.

Broken down by Stock Code, then Stock item. Total application is shown for each item.

<u> З 22 Ра</u> н ч р н	1 /1 🎢 🔍 🗸				SAP OF	RYSTAL F	EP
	V una 🦐 🖓				SAF G	TOTAL	
	High End Farm		0	Date: 03/0	4/18		
	Completed Commodity Costings By Crop			Page 1	of 1		I
Crop: Winter Wheat			Harve	est Year: 2	2016		I
Winter Wheat Fertiliser	27.40 Ha						I
Ammonium Sulphate Total Fertiliser	Area	Quan 6000.00 18632.50 24632.50	/Unit 0.31 0.16	Value 1860.00 3018.47 4878.47			I
Seed Item Robigus (Home Saved) Total Seed	Area	Quan 5000.00 5000.00	/Unit 0.25	Value 1250.00 1250.00	<u>/Ha</u> 45.62		
Sprays Item Bravo Cerone Chlormequat Flexity Glyphosate Hormony SX Manganese Sulphate Moddus Opus Splice Total Sprays Yield	Area	Quan 54.80 13.70 47.95 5.48 54.80 2192.00 82.20 4.51 31.51 34.25 2521.20	/Unit 4.35 9.75 1.09 37.00 4.55 0.15 0.48 30.00 25.50 19.70	Value 238.36 133.57 52.26 202.77 249.34 323.32 39.79 135.15 803.53 674.74 2852.83	8.70 4.87 1.91 7.40 9.10 11.80 1.45 4.93 29.33 24.63 104.12		
Item Wheat Sale Total Yield Total Winter Wheat	Area	Quan 238.49 238.49	<u>/Unit</u> 178.30	Value 42521.67 42521.67 33540.37	1551.89		
Totals				33540.37			

NVZ Reports

8.6.

The reports in this section are based on those published in the Scottish Government's 'Guidelines for Farmers in Nitrate Vulnerable Zones'.

Reports							
Spreading Land, I	.oading (Table 1):	() Ann	ual Fertilise	r Inventory (Table 12)	:	
O Average Stocking	Records	(Table 3):	🔿 Org	anic Manur	es - Imports/Exp <mark>o</mark> rts (Fable 13):	
O Nmax for Arable C	rops (Tal	ole 8):	O Nma	ax for WOS	R (Table 16):		
🔘 Livestock Manure	Applicat	ions (Table 9):	🔿 Slur	ry Productio	on (Table A):		
O Nmax for Grasslan	nd (Table	10):	O Pou	ltry Manure	(Table N):		
Field Record Sheet	et (Table	11):	O FYN	1 Productio	n (Table Q):		
mits							
St	art:	High End Far	m	\sim	Limits		
the second se	nd:	North End		1.25			
Harvest Year:		2017 ~					

Before creating a report for a specific year you should be sure that the livestock figures are correct for that year in the Excreted Nitrogen and Slurry section of the Maintenance section.

Selecting a year pre-2009 will change the report to those which were described under the rules in force at that time.

The Table referred to in brackets corresponds to the same as published in the Scottish Executive 'Guidelines for Farmers in Nitrate Vulnerable Zones' booklet of tables.

8. 6. 1. Spreading Land, Field Loading. (Table 1)

Calculates the spreadable area of each field and applies the Maximum Nitrogen figure to get the Field Limit.

	<u></u>							
		Hi	gh End Farr	n				Date: 03/04/18
	Spreadi		& Field Loa		able 1)			Page 1 of 1
Holdings : High End Farm	n to High	End Fa	rm					
			Ditches a	ind	Other			
		Field	Watercour	ses	Red	Unavail	Spread	Field
Field Name	Sub	Area	Length	Area	Areas	Areas	Area	Limit
High End Farm	Cit (14)		65 815 8 B	1	92 - Ea			641 - 183
01		11.44	210.00	0.21	0.00	0.00	11.23	2807.50
02		10.86	240.00	0.24	0.00	0.00	10.62	2655.00
03		7.89	0.00	0.00	0.00	0.00	7.89	1972.50
04		13.88	240.00	0.24	0.00	0.00	13.64	3410.00
05		10.71	0.00	0.00	0.00	0.00	10.71	2677.50
06		14.96	1050.00	1.05	0.00	0.00	13.91	3477.50
07		1.49	0.00	0.00	0.00	0.00	1.49	372.50
08		11.20	1070.00	1.07	0.00	0.00	10.13	2532.50
09		0.89	0.00	0.00	0.00	0.00	0.89	222.50
10		2.99	200.00	0.20	0.00	0.00	2.79	697.50
11		10.77	290.00	0.29	0.00	0.00	10.48	2620.00
12		7.80	240.00	0.24	0.00	0.00	7.56	1890.00
13		12.79	0.00	0.00	0.00	0.00	12.79	3197.50
14		11.08	450.00	0.45	0.00	0.00	10.63	2657.50
15		4.81	0.00	0.00	0.00	0.00	4.81	1202.50
16		14.20	490.00	0.49	0.00	0.00	13.71	3427.50
17		14.15	0.00	0.00	0.00	0.00	14.15	3537.50
18		6.14	0.00	0.00	0.00	0.00	6.14	1535.00
Totals for High End Farm		168.05	4480.00	4.48			163.57	40892.50
Totals		168.05	4480.00	4.48	0.00	0.00	163.57	40892.50
Loading Limit for Livesto	ck Manu	re	28568.50 kg					

Areas of ditches and watercourses, red area and other unavailable areas are set in the individual field records under the manure section.

8. 6. 2. Average Annual Stocking Record (Table 3)

Records the number of animals on the holding and calculates the total livestock nitrogen production.

	g Records (Table 3)															<u> </u>	<u>.</u>
		₩ 🔍 +														SAP CRYST	AL REPO
		H	igh En	d Fari	n										Date:	03/04/18	
		Average Sto	ocking	Recor	rds (T	able 3)	1								P	age 1 of 1	
															Harvest Y	'ear: 2016	
															e Nitrogen		
Code	Description	<u>Jan</u> 85 0 2 0	Feb 85	Mar 85	Apr 85	May 85 0 2 80 0	<u>Jun</u> 85	<u>Jul</u> 85	Aug 85	85 80 2	0ct 85	<u>Nov</u> 85	Dec		s per Head		
B12 B16	Beef Suckler Cow (up to 500kg) Steer/Heifer (3 to 13 months)	0	80	83 0	80	80	80 40	80	80	80	80	80 0	85 0	1020 85.00 360 30.00		5185.00 1020.00	
B18	Bull for Breeding (over 25 months)	2	0 2 0	0 2 40 0	0 2 80 0	2	40 2 40 0	80 2 0 0	80 2 0	2	80 2	2	2	24 2.00		96.00	
B20	Calf (up to 3 months)	0	0	40	80	80	40	0	0	0	0	0	0	240 20.00		160.00	
S13	Lamb (from 6 to 9 months)	100	0	0	0	0	0	0	0	150	500	400	200	1350 112.50	2.00	225.00	
Totals																6686.00	
•																	
ent Page No.: 1		Total Pa	ae No.:	1							700	m Facto	r: 100%				

The numbers are entered in the NVZ section under the Excreted Nitrogen Section.

8. 6. 3. Nmax for Arable Crops (Table 8)

Calculates the Nmax figure for each crop based on the individual field records.

2 B H 4 1	- ⊬ 1	/1	19 🔍 -										SAP CRYS
	1		1927 1987										
													-
		a a a a a a a a a a a a a a a a B		High End Fa									Date: 03/04/18
		50 17	vmax for	Arable Cro	ops (Tabl	e8)							Page 1 of 1
Spring Barley		Standard Yield:	5.5 t/ha	Average Y	ield for th	is crop on	this farm:	6.5 t/ha					
		Crop Prev	Soil	Standard					N from	N from	Winter	N to be	N to be
Field Name	SF	Area Crop	Туре	N Rate kg N /ha	Yield kg N /ha		N Rate kg N /ha	Total N			Rainfall	Applied	Applied kg /ha
04	31	13.88 WW	SL	130	<u>kg N /na</u> 15	<u>kg N /na</u> 0	145	2013	<u>kg</u> 545	468	kg /ha 0	468	106
05		10.71 SB	SL	130	15	0	145	1553	545 0	1468	0	1468	145
08		11.20 SB	SL	130	15	0	145	1624	304	1320	0	1320	145
11		10.77 SB	SL	130	15	0	145	1562	314	1248	0	1248	116
12		7.80 SB	SL	130	15	Ő	145	1131	181	950	ő	950	122
13		12.79 SB	SL	130	15	õ	145	1855	0	1855	Ő	1855	145
14		11.08 SB	SL	130	15	õ	145	1607	Ő	1607	ő	1607	145
EN01		12.39 WB	SL	130	15	Ő	145	1797	Ő	1797	Ő	1797	145
EN05		15.79 SB	SL	130	15	õ	145	2290	372	1918	Ő	1918	121
EN06		11.18 SB	SL	130	15	0	145	1621	0	1621	0	1621	145
EN07	А	6.78 WW	SL	130	15	0	145	983	0	983	0	983	145
Totals								18034	1716	16318	Nmax	16318	
Ware Potatoes		Standard Yield:	0.0 t/ha	Average Y	ield for th	is crop on	this farm:	0.0 t/ha					
		Crop Prev	Soil	Standard					N from	N from	Winter	N to be	N to be
		Area Crop	Туре	N Rate	Yield	Market	N Rate	Total N			Rainfall	Applied	Applied
Field Name	SF	ha	0.000	kg N /ha			kg N /ha	kg	kg	kg	kg /ha	kg	kg /ha
02		10.86 SB	SL	225	0	0	225	2444	0	2444	0	2444	225
06		14.96 SB	SL	225	0	0	225	3366	0	3366	0	3366	225
EN02 Totals		10.43 SB	SL	225	0	0	225	2347 8156	261 261	2086 7895	0 Nmax	2086 7895	200
Winter Wheat		Standard Yield:	8.0 t/ha	Average Y	ield for th	is crop on	this farm:	10.0 t/ha					
		Crop Prev	Soil		- Adjust		- Adjusted		N from	N from	Winter	N to be	N to be
		Area Crop	Type	N Rate	Yield	Market	N Rate	Total N			Rainfall	Applied	Applied
Field Name	SF	ha	FERSE LOCAL D	kg N /ha	kg N /ha		kg N /ha	kg	kg	kg	kg /ha	kg	kg /ha
01		11.44 WPOT	SL	190	40	0	230	2631	0	2631	0	2631	230
03		7.89 WPOT	SL	190	40	0	230	1815	355	1460	0	1460	185
EN03		8.07 WPOT	SL	190	40	0	230	1856	121	1735	0	1735	215
Totals								6302	476	5826	Nmax	5826	

8. 6. 4. Livestock Manure Applications (Table 9)

	Lives		ligh End nure Ap		ons (Table	e9)			Date: 0 Pag	3/04/18 e 1 of 1	
Field Name	SF	Soil Type	Man Ref	Total N	Season	% N Spring	Size	Amount Applied		Available N Next Crop	
		-	10	kg /t			ha	t	t/ha		
03		SL SL	16 16) Spring	30.00	7.89	47.34	6.00		
04		SL	4) Spring) Spring	30.00 20.00	13.64 13.64	54.56 136.40	4.00		
08		SL	16) Spring	30.00	10.13	40.52	4.00	ALC: 44 33 30 4	
11		SL	16) Spring	30.00	10.48	41.92	4.00		
12		SL	4		Spring	20.00	7.56		24.00		
EN02		SL	4)Spring	20.00	10.43	260.75	25.00	25.00	
EN03		SL	4	5.00	Spring	20.00	8.07	121.05	15.00	15.00	
EN05		SL	4	5.00)Spring	20.00	14.89	372.25	25.00	25.00	

Lists the applications of FYM and slurry made in the calendar year.

Entries are made in Field Operations, Completed Operation, Manure Operations.

8. 6. 5. Nmax for Grassland (Table 10)

Calculates the Nmax for total grassland based on the individual field records.

			and the second s						EPORT
			Web Field France						
			High End Farm Nmax for Grassland (Tab	10 10)					
			Ninax for Grassiand (Tac	ne ivj					
		Grass Site	Intended	Standard	Total	N from	N from	N from	
Field Name	SF	Area Class	s Use		Nitrogen	Organic N	Aanufact Ma	nufact	
		ha		kg N /ha	kg	kg	kg	kg /ha	
07		1.49 2	1 Cut Silage + Grazing	270	402	0	402	270	
09		0.89 2	Hay + Grazing	210	187	0	187	210	
10		2.99 2	Grazing with Low Clover	260	777	0	777	260	
15		4.81 2	Grazing with Low Clover	260	1251	0	1251	260	
16 17		14.20 2 14.15 2	Grazing with Low Clover	260 270	3692 3821	0	3692 3821	260 270	
18		14.15 2 6.14 2	1 Cut Silage + Grazing Grazing with Low Clover	260	1596	0	1596	260	
EN04		0.41 2	Grazing with Low Clover	260	107	0	107	260	
EN04 EN07	В	6.00 2	Grazing with Low Clover	260	1560	0	1560	260	
EN08	D	10.32 2	Grazing with Low Clover	260	2683	õ	2683	260	
EN09		5.52 2	Grazing with Low Clover	260	1435	Ő	1435	260	
EN10		6.04 2	Grazing with Low Clover	260	1570	0	1570	260	
EN11		5.91 2	Grazing with Low Clover	260	1537	Ō	1537	260	
EN12		6.07 2	Grazing with Low Clover	260	1578	0	1578	260	
EN13		6.97 2	Grazing with Low Clover	260	1812	0	1812	260	
EN14		29.66 2	Grazing with Low Clover	260	7712	0	7712	260	
EN15		9.14 2	Grazing with Low Clover	260	2376	0	2376	260	
EN16		15.45 2	Grazing with Low Clover	260	4017	0	4017	260	
Totals					38114	0	38114		
1									>

8. 6. 6. Field Record Sheet (Table 11)

Calculates the Actual usage of Nitrogen on a Crop. Each field is shown with its applications, the Nitrogen calculated and compared with the field limit. All Nitrogen for the fields growing the same crop is totaled and compared with the Nmax for that crop. Warnings are shown if the Nmax is exceeded.

		M 🔍 🕶	SAP CRYST/
		High End Farm Field Record Sheet (Table 11)	Date: 03/04/18 Page 2 of 5
			Harvest Year: 2016
	imit: 260.00	Actual N: 83.75 Total N: 583.74	
Total Grass under 5 years		Nmax: 25885.60 Total N: 4043.45	
Spring Barley			
04	SL	13.88 Ha NO/32321/44871 Inorganic Nitrogen	13.64 Ha Organic Nitrogen Field
Date Applied Crop	Date	Rate Total N Description kg /ha Applied	
15/03/16 Spring Barley	15/03/16	Ng mu Appreu	16 25.00 4.00 1364.00
28/03/16 Spring Barley 12/05/16 Spring Barley		Ammonium Sulphate 475.00 1384.53	4 5.00 10.00 682.00
,	imit: 106.00	Actual N: 99.75 Total N: 1384.53	2046.00 3410.00
05	SL	10.71 Ha NO/32459/44530	10.71 Ha
Date	Date	Inorganic Nitrogen Rate Total N	Organic Nitrogen <u>Field</u> <u>Man Nitrogen Rate Total N Limit</u>
Applied Crop 12/05/16 Spring Barley		Description kg /ha Applied Ammonium Sulphate 500.00 1124.55	
12/03/10 Spring Darley	imit: 145.00	Actual N: 105.00 Total N: 1124.55	
08	SL	11.20 Ha NO/32670/45323	10.13 Ha
Date	Date	Inorganic Nitrogen Rate Total N	Organic Nitrogen <u>Field</u> Man Nitrogen Rate Total N Limit
Applied Crop	Sown	Description kg /ha Applied	Ref Analysis / Ha Applied (250) Comment
15/03/16 Spring Barley 12/05/16 Spring Barley		Ammonium Sulphate 400.00 940.80	16 25.00 4.00 1013.00
	imit: 118.00	Actual N: 84.00 Total N: 940.80	1013.00 2532.50
11	SL	10.77 Ha NO/32896/45132	10.48 Ha Organic Nitrogen Field
Date	Date		Man Nitrogen Rate Total N Limit
Applied Crop 15/03/16 Spring Barley	Sown 15/03/16	Description kg /ha Applied	Ref Analysis / Ha Applied (250) Comment 16 25.00 4.00 1048.00 1048.00 1048.00
12/05/16 Spring Barley	15/03/16	Ammonium Sulphate 475.00 1074.31	
	imit; <mark>11</mark> 6.00	Actual N: 99.75 Total N: 1074.31	1048.00 2620.00
12	SL	7.80 Ha NO/33090/44963	7.56 Ha Organic Nitrogen Field
Date	Date	Rate Total N	Man Nitrogen Rate Total N Limit
Applied Crop	Sown	Description kg /ha Applied	Ref Analysis / Ha Applied (250) Comment

Each field is shown with its applications, the Inorganic Nitrogen application is calculated and compared with the field limit. All Nitrogen for the fields growing the same crop is totalled and compared with the Nmax for that crop. Warnings are shown if the Nmax is exceeded.

Organic Manure application are shown and the Nitrogen calculated. Warnings are shown where the field limit is exceeded.

Total Nitrogen applied in each class is calculated at the end of the report.

8. 6. 7. Annual Fertiliser Inventory (Table 12)

List all the Fertilisers used or in stock in the current year.

W	Annual Fertiliser Inventory (Table 12)							
£		/1 //	ծ ≪, - ∣	_	_	SAP (CRYSTAL R	EPORTS
		High End		- 10)		Date: 03/04/18 Page 1 of 1		
		Annual Fertiliser In	ventory (Tabi	e 12)		Harvest Year: 2016		
	Item Name 12-11-18 20-10-10 Ammonium Nitrate Ammonium Sulphate CAL	Opening Stock 0.000 0.000 0.000 0.000 0.000	Purchases 50.000 60.000 56.000 80.000 0.000	Usage 45.313 0.000 12.069 79.081 7.742	Closing Stock 4.687 60.000 43.931 0.919 -7.742			
	Total of 5 Items Listed.	0.000	5.000	1.172				
-	ent Page No.: 1	Total Page No.:	4		70000	Factor: 100%		>

Takes all the Fertilisers with opening stock at the beginning of the Year. Purchases are taken from the Fertiliser records. They are entered in Stock Events, Stock Receipts. Usage is taken from Individual field records. Closing stock is calculated from the above three.

8. 6. 8. Organic Manures - Imports / Exports (Table 13)

Displays a list of the imports or exports of organic manure from the farm.

🗃 Organic Manures - Imports,	Exports (Table 13)		8 <u>–</u> 8		×
≝ ≝ ≋ № + . +) H 1 /1 A 🔍 -		SAP C	RYSTAL R	EPORTS
	High End Farm		Date: 03/04/18		Ĩ
	Organic Manures - Imports & Exports (Table 13)	Page 1 of 1		
			Harvest Year: 2016		
		Nitroge	n		
Date Quantit	/ Manure	kg /t	Received from / Supplied to		
	0 (R) Broiler/Turkey Litter, Stored Uncovered	25.00	Oaklands Egg Producers		
	0 (R) Broiler/Turkey Litter, Stored Uncovered	25.00	Oaklands Egg Producers		
	0 (R) Broiler/Turkey Litter, Stored Uncovered 0 (R) Broiler/Turkey Litter, Stored Uncovered	25.00 25.00	Oaklands Egg Producers Oaklands Egg Producers		
20/1/10 00.0		20.00	Sakanda Egg i foddeera		
Totals Received	785.000 Supplied: 0.000				
<				K	>
Current Page No.: 1	Total Page No.: 1		Zoom Factor: 100%		

Entered in the NVZ section and Organic Manure Movements.

8. 6. 9. Nmax for WOSR (Table 16)

Calculates the Nmax for Autumn applications of N on winter oilseed rape.

8. 6. 10 Slurry Production (Table A)

Calculates the weekly production of Nitrogen in slurry.

Slurry Productio	n (Table A)						. 🗆	×
	H → → H 1 /1 /1	€ , +				SA	P CRYSTAL	REPOR
	Link End F					Date: 03/04/18		
	High End F Slurry Production					Page 1 of 1		
	olariy roddollo	in (Table 7)			На	rvest Year: 2017		
Code B17	Description Bull Beef (3 months and over)		Nitrogen per Head 0.18	Weeks Housed 27	Total Nitrogen 364.50			
D12 D14 Totals	Dairy Cow (6000 to 9000 litre milk yield) Dairy Heifer Replacement (13 months to first	140 calf; 30	0.37 0.28	27 27	1398.60 226.80 1989.90			
								>
ent Page No.: 1	Total Page No.: 1			Z	oom Factor:	100%		

Figures are entered in the NVZ Section, FYM and Slurry Production.

8. 6. 11 Poultry Manure (Table N)

Calculates the annual production of Poultry Manure.

Figures are entered in the NVZ Section, FYM and Slurry Production.

8. 6. 12 FYM Production (Table Q)

Calculates the FYM Production based on the Livestock on the Farm.

	High End FYM Production			 		03/04/18 ge 1 of 1	
Code B11 B18 B20 Totals	Description Beef Suckler Cow (over 500kg) Bull for Breeding (over 25 months) Calf (up to 3 months)	No of Animals 85 2 60	Excreta per Head per Week 0.32 0.18 0.05	H Straw Addition Factor 1.15 1.15 1.15	Arvest Ye FYM Density Value 0.70 0.70 0.70	ar: 2016 <u>Total</u> <u>Manure</u> 1072.46 14.19 39.43 1126.08	

Figures are entered in the NVZ Section, FYM and Slurry Production.

8.7. Selective Reporting

This section allows you to create reports to your own specification. Any information held within a field record can be incorporated into a report in this section. These report formats can be saved and reproduced at any time.

Selective Reporting					3
Barley Margin Wheat Fields Limings Last 5 years				^	
				v	
New	Current Fields:	Non Current Fields:	Help	_	

To create a new report:

Click New on the Bottom Button Bar. Enter the Name of the new report. This is the name the report will be stored as.

You may now pick the parameters of the report form the scrolling screen as shown below.

Rep	ort Title: Wheat I	ields			Columns Used:	77]
_	Heading	Len	Lower	Upper	Incl	Rank	^
۲	Field Name	35					
	Field Size	9					
	2nd Units	20					
	2nd Size	9					
	OS Number	16					
	Map Reference	16					
	Land Class	10					
	Soil Type	26					
	Sub Soil Type	26					
	Holding	20					
	Field Comment	41				1	
	Comm Date	11					
	Harvest Year	8	2010	2017		1	
	Crop Size	9					
	Crop Size 2	9					
	Crop	21	ww				

There are three stages to creating the report layout.

Firstly, set the limits on what you want to include in the report. Click in the **Lower** box of the item you wish to limit, you will be asked to select the bottom limit and the upper limit of your selection. You may also be given a list to select from where there are a limited number of preset options. As an example, you may wish to limit one crop or variety or crop year or below a pH level.

Secondly, to include headings in the report click the box under **Incl** to show **Yes**. The order in which you click this selection is the order in which the headings are laid out across the paper. The number of columns each heading takes in a report is shown in the **Len** Column. The total characters of all selected headings is shown at the top of the report.

Thirdly, the Sort order of the report is set by the end column under **Rank.** If you want the report sorted by a particular heading click in the rank box of that heading. This will be the first sort criteria. Should you wish to sort further within the first choice then click in you second chosen option rank box. An example of this may be to sort firstly by Crop and then within crop by Variety.

Click OK to save your report format. **To display or print a report:**

Highlight the report you wish from the list. Select whether you wish to include Current and / or Non-Current fields.

Click **Display** or **Print** on the Bottom Button Bar.

To change the format of an old report:

Highlight the report you wish from the list. Click **Old** on the Bottom Button Bar and the report format will be display for editing.

To delete an old report:

Highlight the report you wish to delete and click **Delete** on the Bottom Button Bar.

Appendix A Backup & Restore Routines

You are strongly advised to make backup copies of your data. To do a backup you can use the utility supplied with the program which is located under the File menu.

Select	t what t	to Backup:	
۲	All Dat	a:	
		usiness:	
0	i.	ed Businesses:	-
	No	Name	
	1 2	High End Farm David A Phillips	
	2	David A Frilips	

You may select to backup all data, in which case all businesses within the system will be saved, this business which saves only the business in which you are currently working or selected business. If you choose selected businesses you must highlight those you wish to save by clicking on the list.

Click Next and you will be asked where you wish to put the backup. The default is A:\CROPdata.zip. To change the location you click the browse button and select your location.

To:	e:\CROP	data.zip			
	Browse	£			
	19.56				
⊡ Cł	eck Backup	Disks for Em	ors (Recommer	nded):	
Progre	ss:				
_			BI E32/ABASI	SP CSVA	
_		MDATA/ARA	BLE32/ARASI	RP.CSV)	

Click start and the backup will begin.

To restore data from a backup created by the above routine use the utility supplied with the program which is located under the File menu. If you are restoring data it is advisable to do take a backup of the current data first.

Click on Restore Data

From:	e:\CROPd	lata zip		
	<u>B</u> rowse			

The default path will be where you last did a backup. If your backup file is located elsewhere you can use the browse button to locate it.

Click Next to start the restore.

No	Name			
1	High En			
2	David A	1 million		
			 	- 1

Select the businesses you wish to restore by clicking on them. Click Start to begin the restore.