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**ProSpace**

**A nursery space-management tool for hardy ornamental nursery stock growers**

**User Guide**

**ProSpace was developed as a result of work conducted under HDC project HNS 136a. The HDC is a division of the Agriculture and Horticulture Development Board.**

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**Rationale**

*The aim of ProSpace is to provide Hardy Ornamental Nursery Stock (HONS) growers with a computer-based method for planning space use for the different environments found in plant nurseries, e.g. outside beds, polytunnels or glasshouses; cold or heated. It is a ‘whole-business’ model and will help enable production to be ‘fitted in the spaces available’. It has also been designed to allow for seasonal and other growing constraints and you can carry over of production from one year to the next. Another major advantage of ProSpace is that it allows for the moving, spacing and timings of dispatch of the plants. It also provides an easy introduction to production space-management planning, using easily collectable or existing nursery data. ProSpace has a facility to import data from ProCost, if this production costing tool has been adopted and is in use by the nursery.*

**What is ProSpace?**

* ProSpace is an Excel-based software package (or ‘space management tool’) that facilitates improved space planning and utilisation for nurseries.
* It is intuitive to use and helps the operator to visualise space use in the different types of nursery plant-growth environments.
* It is a ‘whole-business’ space-management tool that can be used for future planning of production, or it can be used in ‘real time’ to solve immediate space issues
* It generates accurate results without the need to first enter data for all of the product lines produced by a nursery.
* It has the capacity to handle up to 10 production stages for product lines and make changes to many batches of plants at the same time.
* At the end of production, it has a facility for extending the dispatch date.
* It has a database facility that generates unique codes for product lines, stores data and Actions, as well as results.
* It has a ‘memory’ of previous Actions, so that changes to plant batches can be reversed at a later date, if required.
* It has a new nursery-week numbering system that removes the ambiguities inherent in other week numbering systems.
* It generates a ‘whole nursery’ summary break-down in tabular form for space use by the nursery business.
* It is completely flexible and so can be used by any HONS business.

Although built in the familiar Excel environment, it is important to realise that ProSpace is not a spreadsheet. *It runs on macros (computer programmes), written in Visual Basic, and so it is necessary to change the security settings on your computer to ‘Medium’ (see* ***Getting started*** *below) to allow ProSpace to run.*

ProSpace has been built to incorporate a significant amount of error checking (see ***Error checking*** section) to help the user.

**IMPORTANT NOTE:**

In the event that a ‘Run-time error’ message (see ***Error checking*** section) is displayed, the most likely cause will be due to the operator entering the wrong data type into a particular cell, e.g. a date into a cell expecting a name. When this occurs, keep calm and carry on. Simply press the “End” button on the error message, which will stop the program and allow you to check your data entry to find out if this is the cause of the problem.

ProSpace 2012.xls and ProSpace 2012.xlsm are available from the HDC website: [www.hdc.org.uk](http://www.hdc.org.uk).

**Data collection required to use ProSpace**

It is essential to use accurate space information and constraints of your individual business. No two nurseries have identical space resources and there is no such thing as standard figures.

The ‘core’ of ProSpace is the “Data entry form”, which has several lists that need to be populated by the user. The unique code generator, for example, uses information about the type of starting material to generate its codes. The types of starting material specific to the user’s nursery will appear when the list for the drop-down box is populated. This is achieved by clicking on the green “Edit starting materials list” button.

ProSpace has been built specifically with the HONS nursery production systems in mind. As such, there are a wide variety of terms used by growers to describe the arrangement of plant containers in a batch. These “spacing descriptions” are related to the numbers of containers per m2 (densities) and must be worked out carefully by the user in the ‘real world’ of their nursery and entered into the appropriate tables (also reached by clicking on the green buttons on the Data entry form).

**Getting started**

Make a ‘Master’ copy of ProSpace on your computer’s hard drive.

You may wish to have some blank copies of ProSpace on your computer in case of emergencies so you can start again. It is considered prudent, because of the complexity of the programme, to use a number of calculations for parts of the nursery starting each one on a separate programme (work sheet), for example one for glass houses, one for the propagation unit etc..

It is good practice to back-up your working version of ProSpace, into which you have begun to load your data, every time you make changes to it.

*Excel 97-2003 Version*

* Open Excel and click on ‘Tools’, then hold your cursor over ‘Macro’. A further drop-down box (three from the top) will have ‘Security’ on it, which you click on. Select ‘Medium’ security level. In future, this will allow you to choose whether or not to run any macro. Click on the OK button.
* To open the file containing the costing tool, click on ‘File’, then on ‘Open’. Find the space management tool file called ‘ProSpace.xls’. Click on it to open it. A ‘Security Warning’ message box will appear which asks whether or not you want to run the macros in the costing tool file. Click on ‘Enable macros’ so that the tool can function properly. ProSpace will then open.
* If you prefer to open the file from Windows Explorer, double click on the ProSpace.xls file and when the ‘Security Warning’ message box appears, click on the ‘Enable macros’ button.

*Excel 2007 Version*

* Double click on the ProSpace.xls file to open it.
* A security warning options message will appear in the upper tool bar area. Click on Options, choose the ‘Enable this content’ option in the message box and click on the OK button.

**How to navigate around ProSpace**

ProSpace consists of a number of Excel sheets for data entry, storage or displaying the results of calculations. The ***Menu*** sheet allows the user to jump quickly to the more frequently used sheets, by clicking on the appropriate ***Go*** button.

Drop-down boxes are also present in the right-hand corner of all sheets, which can be used to navigate to any other sheet.

An alternative method is to use the Excel tabs at the bottom of the sheets.

**Error checking**

In order to reduce the chances of errors in the data, ProSpace has three methods of error checking. On the right-hand-side of most sheets, there is an error checking box that changes to red or orange, if data have been omitted. There is also a data validation check on most inputs so that if data are entered outside the expected range, an error message with be generated. The third level of error checking is incorporated into the software. When the green command buttons are used and the program detects a problem, this should generate an informative error message. In some instances, this may become unnecessary and so there is a tick box available to turn them off.

It is important to realise that it is impossible to anticipate all of the error types that might occur and so occasionally a ‘Run-time error’ message will be generated (see important note above).

For practical details on collecting and entering nursery data, see the section below called ***Collecting and entering data for ProSpace.***

**Financial data**

The ***Import data*** facility brings in profit or loss information for batches imported from ProCost. At present, this is only for the users’ information and is not incorporated into any optimisation process for space use. It is important to realise that moving batches of plants has real cost implications. If it is realised that a product line requires a lot of moves during production, it may be worth using ProCost to obtain an updated cost of production.

**Week numbers**

When starting ProSpace for the first time, it is essential to set up the week numbering system. To do this, click on the green button called, “Set nursery week numbers” and enter the first day of the required year. This is given from the list of dates below.

Once this had been decided and entered, it is then necessary to click on the green button called, “Add Yr to Wk No.”, in the “Week conversion to dates” list which is to the right of the “set nursery week numbers”. This creates the week numbers that are used in the software programs and so is essential for the successful functioning of ProSpace. Once this is done, click on the green “Return to data entry form” button.

You will now be able to enter dates for the production of plant-batches. A facility has been provided to convert these dates to week numbers by clicking on the “Convert to nursery wk” buttons.

Once you have entered the data for the ProSpace lists, you will be in a position to enter the data for a new plant or product-line. Click on ***Write to database***to add these data to the ProSpace database.

*When data has been written the ProSpace database, it has not been saved. To save the new data in the data-base, simply click on the Excel* ***Save*** *icon.*

In the same way as ProCost, ProSpace data are stored in Sheets ***Stage 1*** *-* ***Stage 9*** and ***Final stage for sale***. Do not edit the data stored in these sheets manually, as this can result in errors occurring when loading data. Do not leave rows blank in the data sheets, except at the end of the data-set, as this will interfere with the search functions and possibly cause Run time errors. ProSpace has been built to include a ‘memory’ that allows changes to batches to be reversed (undone). These data are also stored in the Sheets ***Stage 1*** to ***Final stage for sale***.

Once previously entered data have been saved, click on the ***Reset tool*** button to clear the data from ProSpace. This will ensure that the correct data are entered for each product line.

For the new product line, enter required data into the white data entry boxes on the ***Data entry form*** (data requirements depend on the production stage selected). Remember to use the red help boxes.

Once the required data have been entered, it is possible to see a summary of the production for that particular batch. This is achieved by clicking on the green ***Summary for code*** button. Any Actions (see below) carried out to plant batches will appear with a blue background, which helps the operator differentiate easily.

**Actions**

When using ProSpace, it is important to realise the conceptual difference between ***Production stages*** and ***Actions***. Production stage information is best thought of as that which is required to physically make the product, such as container type and starting plant material. Actions are best thought of as activities carried out to plant batches during a production stage. For example, *Berberis harlequin* liners in 9 cm pots are planned for production Stage 1 from weeks 1/2012 to 30/2012. In this period, an ‘Action’ is carried out on them to move them from their current location to a new one. At the end of Stage 1, a new production stage occurs (Stage 2), which is to re-pot the liners into 1 litre pots. There can also be a change of location or spacing associated with the next production stage. The programme is not capable of splitting batches however the method to overcome this problem is described in the ‘to move a single item’ section.

To carry out Actions to an individual batch of plants, load this batch information to the ***Data entry form*** using the ***Search*** and ***Selection*** facilities (see below). Then click on the Transfer for Actions button, where it is possible to select the week number for the Action, the destination for the move, the new number of units for the batch and its spacing description. In addition, for the ***Final stage for sale*** production stage, it is possible to extend the dispatch date by selecting a new ending week number.

Actions can be implemented, undone and summarised using the appropriate command buttons at the top of the ***Actions*** sheet. The database memory can accommodate five separate Actions.

In order to avoid double counting of the area requirements, ProSpace assumes that Actions are implemented in the selected week number. The current conditions apply until the last day of the selected week number and the changed data come into effect from the first day of the subsequent week number.

The logic of the program also assumes that if the Action week number and the first week number of the stage are the same, then the change occurs immediately, i.e. the batch is not in one location for only one week at the start of the production stage, before being moved to the new location. The ‘memory’ has room for one Action of this type. If more are required, this probably means that it is necessary re-consider how the production stages have been define and entered. These data can be altered using the ***Data entry form***.

Remember that when data has been written the ProSpace database, it has not been *saved. To save the new data in the database, simply click on the Excel* ***Save*** *icon.*

**How to load existing product line data from ProCost**

In order to do this, production costing data must have been written previously to the ProCost data-base. You will need to put the ProCost file in the same directory as the ProSpace file so that the file and data can be found. It is necessary for the ProCost file to be open, so that the ProSpace software can find it.

Use the ***Go to*** drop-down box to select the ***Import data*** sheet. Enter the ProCost file name in the top box, then enter the other desired search parameters. For these to be effective, it is necessary to use exactly the same terminology for ProSpace, as appears in ProCost.

The colour formats of ProCost and ProSpace are intentionally different, so that the operator can switch easily between software packages without confusion.

**IMPORTANT POINTS TO REMEMBER!**

1. - ProCost does not contain batch spacing data and so these need to be added manually to the imported batches using the ***Data entry form***.

2. - ProCost uses a less advanced method of assigning week numbers and so ProCost data need to be checked that there is no overlap in week numbers. Any overlaps will introduce errors into the calculations, because space requirements for that batch, for those weeks, will be counted more than once. It may also trigger Run-time errors.

When the ProCost search criteria have been decided and selected, clicking on the ***Search ProCost*** button will carry out the search and place the results on the ***Imported selection*** sheet. Use the cursor to select the batch unique codes you wish to transfer to ProSpace. Click on **Select**, which moves the batches to the next columns on the right-hand side of the sheet. ***Write to ProSpace*** will import the data for the selected codes. If these are already present, you will receive a message to ask if you wish to over-write the existing data.

**Finding and loading data from the ProSpace database**

ProSpace uses a more efficient way of finding unique codes than ProCost. Choose the ***Search*** option from the ***Go to*** drop-down box. Enter the search criteria relevant to the batches you require. The ***Search ProSpace*** button will then take you to the ***Selection*** sheet where the results of the search are displayed.

The ***Selection*** sheet operates in a similar manner to the ***Imported selection*** sheet, with several additional features. One addition is the facility in the top right hand corner for loading selected batches to the ***Data entry form***. To do this, select batches by moving them to the right hand columns. Select the required production stage using the drop-down box and highlight the unique code you are interested in using the cursor. Click on the ***Data entry form*** button to load the data for this code.

It is often helpful to view production arranged in an order with the earliest batches appearing first. Once the codes of interest have been selected and moved to the right hand columns, the ***Sort Chronologically*** command button will re-arrange the codes. This function only operates in the right-hand side columns. It is important to realise that the sorting is carried out using the starting week number of the first production stage (see also the ***Space output*** information below).

Another additional feature of the ***Selection*** sheet is that it has a function controlled by the ***Multi-batch Actions*** command button. This increases the utility of ProSpace by allowing the user to carry out Actions to a large number of batches at the same time. Once a set of unique codes has been selected, clicking on the ***Multi-batch Actions*** command button take you to the Space output sheet, where the production batches can be see, divided into their individual production stages.

**Actions to a number of batches at the same time**

The ***Space output*** sheet operates in a similar manner to the ***Actions*** sheet. To carry out your changes to a number of batches, select them using the check boxes adjacent to their names and unique codes. The command buttons at the top of the ***Space output*** sheet then implement and undo, if required, the selected Actions. The changes will appear in the rows adjacent to each batch and warnings will appear triggered if capacity of the location is exceeded. This is also indicated by the appearance of a red font colour for the affected (overflow) codes and week numbers.

There is only room for up to 600 separate plant batches on the ***Space output*** and ***Selection sheets***. The processing time will increase with the increasing number of batches. If a location on the nursery has more than 600 different batches present, it will be necessary to process them on the ***Space output*** sheet in separate lots.

It can appear as if the chronological sort of the batches has not worked, if batches at different stages of production are displayed adjacent to one another. This is because the sort function operates on the starting week number of the first production stage.

**How to transfer product line data to the next production stage**

Once production line stage data has been entered into ProSpace, it is possible to move this material on to the next production stage. Select the required unique code, as described above. Select the required production stage from the drop-down box and enter the new data. Remember to write this to the data base and save it if required.

**Nursery summary report**

In order to get an overall picture of space utilisation on the nursery, ProSpace will calculate this taking account of all the Actions that have been performed on the different plant-batches. This facility is available from the ***Nursery summary report*** button, located on the ***Data entry form***.

If the ProSpace data-base contains a large number of entries, with a large number of Actions, processing this information can take several minutes. A ***Please wait…..*** message will appear, which shows that the software is still running.

**A STEP BY STEP GUIDE FOR USING PROSPACE**

**Important Points**

* First read the overview (pages 1 to 8)
* Do not cut and paste data directly into the database as any gaps in the data will cause the programme to stall
* Do not delete data from the database for the same reason
* Enter each piece of data using the return key
* Always “save to database” after each action
* The above action only saves to the database and you will need to click on the Excel save button to permanently save the data
* Check that there are no error messages showing before proceeding
* Always reset forms before adding new varieties or starting a search.
* The programme is not capable of splitting batches i.e. carrying out two different actions at the same time such as moving half a batch and spacing the other half. This can be achieved by carrying out one of the actions as described below. The other action can be achieved by entering this as a new batch in the data entry form and proceeding accordingly.
* Until you are familiar with the programme it is advisable to work on a small scale with a limited number of crops and environments.
* Always carry out the actions in the order proscribed below

**Collecting and entering data for ProSpace**

**Data entry**

The ***Data entry form*** sheet is the ‘core’ of the software. It is designed to accept the many different types of data required to plan space use. To find out more about the data needed, simply float the cursor over the appropriate red help box  and a comment box will pop up containing information to guide you.

For this software, only one of the data-entry types is optional, identified by the following red symbol, **§**.

If a data entry error message appears when entering data, check and re-enter the required data. This should solve the most common errors.

ProSpace has been designed to keep data entry to a minimum.

***Nursery details***

This should be self-explanatory and needs to be completed because it identifies from where the data have originated, in case you need to send the file to other people.

***Entering data into the selection lists***

Located on the right hand side of the ***Data entry*** sheet, there are green ***Edit list*** buttons that take the user to areas where they can populate lists with information relevant to their nursery.

*Edit plant starting materials list*

As described above, click on the green button with this name and you will be taken to an area where you can enter information relevant to your business. Starting plant material names that are entered in the white cells will appear in the starting plant material list of the drop-down box, e.g. seeds, plugs, liners etc.

These are used to produce the unique code as in ProCost and act as a way of identifying the code.

*Edit container type list*

Enter all of the names of the containers that are used on the nursery.

Enter the number of plant units per pot or container. In the case of multi-sticking (putting more than one plug into a pot) this number should remain one per pot. However, with trays such as cuttings the number of cells per tray should be recorded

*Edit spacing description list*

In this table put a description of the spacing for each type of container e.g. pot thick, spaced or half spaced. This will be used to create a grid of densities (see below).

*Edit density table*

|  |  |  |
| --- | --- | --- |
|  | Spacing Description |  |
| Pot or Tray Type | Pot thick | spaced |
| 2 litre | 30 | 18 |
| 1 litre | 48 | 32 |

This grid will be automatically generated from the “edit container type list” and the “edit spacing description list”.

Into this table put the plant density in plants per square metre. This will be used to calculate the area used by the crop. It is important to allow for spacing gaps in the crop when calculating the density.

It is possible to have many combinations of pot or tray type and spacing description.

*Edit site or environment list*

Unlike ProCost, these lists are essential and it is important to enter the maximum areas accurately. An ***Area check*** button has been added to help ensure that the allocations have all been entered accurately. Red or blue boxes indicate under and over allocation respectively.

This table gives a hierarchical view of the site or environment. This is the highest level and could indicate environment e.g. heated polythene, cold glass outside beds etc. or site if the nursery is on different sites.

*Edit area name or code list*

This is the actual location. This can be either a bed number or a code. It is important that the usable area is calculated accurately. Use the drop down box to allocate the environment type and use the check area button to ensure the total area is correct.

**USING THE DATA ENTRY FORM**

It is important to edit the above lists before starting although it is possible to add extra categories to each as you enter data.

IMPORTANT - remember to enter each piece of data using the return key to ensure it registers.

**Species / variety name (at least two words)**

ProSpace keeps track of product-line batches by their ***unique batch code***. It is recommended strongly that this facility on the ***Data entry form*** sheet is used, rather than the operator make up their own codes. To create a unique code at the start of production, click on ***Batch code***. A unique batch code only needs to be created if Stage 1 of production is selected, or if the Final stage for sale is also the first production stage. For all of the other production stages, there will be no need to create a unique production code, because it will already have been assigned at Stage 1.

***How to interpret (read) the unique batch code***

The unique code is created by taking the first three letters from each of the two first words of the species or variety name. It then takes the first three letters of the starting material name, followed by a ‘P’ or ‘F’ for a production or final stage for sale. This is followed by the starting week number and the batch number. For example, the following information ‘Gold Rising Flames’, ‘Seeds’, ‘Stage 1’, ‘Week number 6’, ‘Year 2012’ and first batch will produce the code ‘Gol.Ris-see-P-6/2012-1’. This system is slightly different to that used by ProCost, due to the new week numbering system. The two systems, however, are compatible and it is unnecessary to change the unique codes for data imported from ProCost.

Enter the plant variety name which must be at least two words as the programme uses this to allocate the unique code be using the first three letters of the first two words.

Note: These codes will help you identify the plant batch in the programme. If you have some plants that are varieties of the same species e.g.:

Campanula glomerata Acaulis and

Campanula glomerata Alba

the code would be Cam.glo for both batches. In cases similar to this it may be better to use the Genus and variety name or a coded version e.g.:

Campanula Acaulis which gives code Cam.aca or

Campanula gAcaulis which gives the code Cam.gac.

**Select the type of starting plant material**

This needs to be done as it is an important part of the unique code. It is less important than in ProCost and could be used as an additional identifier in the code.

**Select the production stage (with Actions in box)**

This needs to be done as it is an important part of the unique code. If “Final stage for sale” is entered, a warning notice will appear “There are no data for this production stage. Either enter new data or the previous stage’s have been retained on this form and may require modification”.

Ignore if this does not apply (e.g. this is the only stage) - click “OK”.

Note that while it is possible to move plants in any of the stages, it is only possible to extend the time on the bed after the end date in the final stage.

**Starting Date (dd/mm/yyyy)**

Enter starting date in the above format. Click “convert to nursery week” to record starting week. Make sure this does not fall outside the time frame you set up when you set nursery week numbers.

**Create unique batch code**

Click “Batch code” button. The programme will not work without this unique code. While it is possible to use your own codes it is strongly recommended that you use the code generated by the programme.

**End** **Date (dd/mm/yyyy)**

Enter end date in the above format. Click “convert to nursery week” to record starting week. Make sure this does not fall outside the time frame you set up when you set nursery week numbers.

**Sales order number**

This is optional and will not affect the working of the programme.

**Number of ‘units’ in batch**

Enter the number of pots or trays produced.

**Select container type**

Select the container type from the drop down list. It is possible to add more containers etc. by using the “Edit container type list”.

**Select the spacing description**

Select this from the drop down list. It is possible to add other spacing via “Edit spacing description” but you must edit the density table to give plant density in plants (units) per square metre. The crop density and batch area will appear automatically. If you need to change any “Number of units in batch”, “Select the spacing description” or “Select container type”, you will need to use the “Update space” button to recalculate the batch area.

**Site or environment type**

Use the drop down list to enter data

**Area name or code**

Use the drop down list to give the bed name of the actual location.

**Note:** All the above boxes (except Sales order number) must be filled in to make the programme work.

The **data must be saved** to the database by clicking the “**Write to database” button.** The programme will not work if each set of data is not saved to the database.

**Surplus or loss per plant (£/plant) from ProCost**

This is from data calculated by ProCost and will only appear if the data is transferred from ProCost. It is for information only.

**Entering Data**

To clear the form ready for the next entry use the “Reset form” button and repeat as above.

As an excel spread sheet it would be possible to copy and paste into the spread sheet. However this is **NOT** recommended as any missing data or empty cells copied into the programme will prevent the programme from operating.

Entering batches of similar data, for example plants in the same sized pot on the same bed on the same day. It is possible to do this by overwriting the changed data such as Species/ variety and plant number. However once the data is entered it is important to update the batch code **and** to update the space before saving to database.

**BUTTONS ALONG TOP OF SHEET**

**Set Nursery week numbers**

This will set the year and week numbers which should not be changed once you are working on a specific time period. It should only be used for the initial set up of the programme (see above).

**Reset form**

Used to clear the form before entering new data (see above).

**Write to database**

Writes data to the database. This must be used to store the data which is used in the programme at the end of each item.

**Summary for code**

This will show the data stored for that batch it will also show any actions and changes that have taken place.

**Moving a Batch**

If you wish to move a single batch then this is best done by using the “Transfer for Actions” which will take you to the “Actions” form.

A summary of the present data is displayed in the grey box on the left of the screen.

**Nursery summary reports**

This button gives the space utilisation for the entire nursery. As this is a large and complex programme this process can take a very long time (if there is a lot of data this could be long enough to make and drink a cup of tea). This should only be used occasionally as the data for specific areas is available elsewhere in the programme with less of a wait.

**USING THE PROGRAMME**

This programme is capable of allocating space for an entire nursery with plant varieties going through many stages. However all this data can be difficult to manage and it therefore becomes easier to make mistakes which will prevent the programme completing its task.

It would be better to run the programme several times to cover specific areas or crop stages, and name and save each one separately rather than run one large programme covering the entire nursery and every crop stage.

If your programme is covering single stages that are not the final stage, it is better to call this the final stage because this will give you more flexibility with the end date.

**SEARCH**

This is the best way to navigate and find data within the programme. It can be used to select data for a single variety or a group of varieties.

Use the “Reset form” button to clear this form. **Always reset the form before commencing a search.**

If this form is left blank it will select all the plant varieties in the programme.

The search can be refined by using any combination of the criteria on the page. Boxes may be left blank.

**Search start period (dd/mm/yyyy): From**

This is non-functional: Please do not use.

**Search end period (dd/mm/yyyy): From**

Enter the start and end dates of the search period and press the “convert to nursery weeks” buttons.

**Enter container type**

Use the drop down box to select the container type.

**Enter at least the first three letters**

To find a specific variety enter the first three letters of the first word of the name.

**Location site or environment type**

Use the drop down box to select the environment type.

**Location area name or code**

Use the drop down box to select the location.

Once the selection has been made press the “Search ProSpace”.

A warning “Please check for the ProSpace file has variety names entered in Stage 1 of the data-base” may appear, ignore and press OK.

This will take you to the “Selection” Page.

**SELECTION PAGE**

The selected plants appear in the left hand side of the page.

Highlight the “Unique batch code” and press “Select” to move the individual or group of plants into the right hand columns.

To remove from the selection highlight the code or codes in the right hand column and press “Deselect”.

**BUTTONS**

**Sort A-Z**

This is non-functional: Please do not use.

**Select**

Selects highlighted varieties by moving from the left to right hand column.

**Deselect**

Deselects varieties from the right to the left hand column.

**Sort chronologically**

This is non-functional: Please do not use.

**Clear Sheet**

Clears Sheet.

**Space Output**

This will give the space output of the selected items provided the “Location Site or environment type” and “Location area name or code” are selected. If the whole location area is selected, this can be used to show the available space. It is much quicker to calculate than “Nursery summary reports”.

**TO MOVE A SINGLE ITEM**

This is best done using the “Data Entry Form”.

Go to the “Search” option select “Location Site or environment type” and “Location area name or code” Click the “Search ProSpace Button”. This will take you to the “Selection” page.

Select the desired variety by clicking on the “Unique batch code” and click the “Select” button.

Select “Select required stage” from the drop down box. Click on the variety code in the right hand column. Load the data entry form by clicking the “Data entry form” button. This will take you to the data entry form.

Click the “Transfer for action” button. This will take you to the “Actions” sheet.

The original data will be shown in the grey box on the left hand side of the page. Use the buttons to describe the action / change to be carried out.

“Select week number for action” Enter the week number in which the action takes place using the drop down box.

“Select destination site for move” Enter the desired environment from the dropdown list.

“Select destination area for move” Enter the desired site from the dropdown list.

“Number of units/ batch” Enter the number of plants in the batch. It is possible to change the number in the batch if wished. Click “Update space” button.

“Select batch spacing description” The spacing may be changed by using the dropdown box. Click “Update space” button.

If in the “Final stage for sale”, it is possible to extend the time on the bed. “Select new ending-week number” from the drop down box.

Click “Implement actions” button.

Click “Action Summary” to see the action.

To see the result, go to search for the old site and area name. Click “Search ProSpace”. This will take you to “Selection” select all and click the “Space Output” button.

This will show you the available space. Repeat the process with the new bed.

If the action is acceptable then it can be left but it also possible to reverse the action by going to the “Actions” sheet and clicking “Undo previous action”. This will return the data-base to before the action was made.

The programme is not designed to carry out two different actions to the same batch that would involve splitting the batch into two batches. For example a batch of 100 plants grown in “location A” has 60 plants moved to “location B” The remaining 40 plants are spaced in “location A”.

The best way would be to use the Actions sheet above to space the 40 plants in the same location and use the data entry form to enter the moved batch as a new entry starting at the date when they were moved.

**TO MOVE A GROUP OF ITEMS**

In “Search” select the environment and site required. Click the “Search ProSpace” button.

In “Selection”, select the group, highlight the selected varieties and click the “Space output” button.

Tick the tick boxes next to the varieties you wish to move.

**“Select week number for actions”** from the dropdown box.

**“Select destination site for move”** from the dropdown box.

**“Select destination area for move”** from the dropdown box.

Click “Action batches” to implement the actions.

Check the space utilisation by using the procedure for single varieties.

If this is satisfactory continue, if not click the “Undo actions” to return to the original position.

Changing the spacing, the number of plants or increase the length of time on the bed, can only be done on an individual basis. See “To move an individual” above.

**Contact us**

The ***Contact us*** sheet lists the project team that developed ProSpace. For general enquires about ProSpace, please contact the HDC.