Ecocrop tutorial

Ecocrop can be applied in any part of the world to three principal tasks. It can:

Identify suitable plants for a specified environment

Enter information about your local climate and soil conditions, such as temperature, rainfall, soil texture, depth, pH, and fertility, etc. Ecocrop then identifies the plants with key climate and soil requirements that match the data you have entered.

Identify plants for a defined use

Specify use(s) and Ecocrop identifies according to your choice plants for food, fodder or pasture, green manure, energy, fibre, timber, paper pulp, shelter and shade, industrial purposes, erosion control, ornamentals and many other uses.

Identify plants for a defined description

Specify plant description and Ecocrop identifies plants according to your choice plants with Life form (herb, tree, etc), Habit (erect, prostrate, etc), Life span (annual perennial, etc), Category (industrial, forage/pasture, etc) and Attributes (grown on large scale, wild. etc.).

The database assists in the identification of candidate species for defined environments, but no large-scale plans, investments or recommendations should be made without first identifying appropriate cultivars and carrying out trials in the area concerned.

Ecocrop can be launched directly from the Internet, using the above mentioned URL or it can be open through EcoPort available at URL: http://www.ecoport.org/

There are two screens available in EcoCrop, the **Main window** and the **Resource Window**. Initially, only the Main Window opens. The Resource Window will open when a help function is activated. You can close the resource Window, it will reappear when needed.

Help and Information Icons are available in al pages. In the home page these contain general help and information. In all other pages help and information specific for the present page. Click the Icon to see the content.

The Main window is divided into three areas; the **Delivery Frame** to the right, a **Main Menu Frame** at the top left and a **Secondary Menu Frame** bottom left. The program opens by default at the **Welcome & Help page**, the first item in the Main Menu. The Delivery Frame is devoted to information delivery while the two frames on the left are devoted exclusively to navigation.
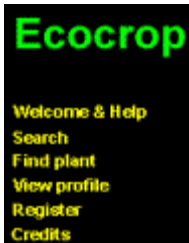
The Main menu has the following headings:

Search: in the **search** form you can specify plant attributes, climate and soil conditions and use for which you wish to identify plant species.

Select the **Plant attributes** describing the Life form, Habit, Life span etc. that you are interested in.

Enter and select enter certain basic **climate and soil information** for the area or environment for which you wish to identify plant species.

Select **Main uses + Detailed use + Used part** that you wish the species to apply to.
Click on any field label and see help regarding the entry for the particular field.

If you do not know one or more of the items of information you are asked for, the program will allow you to leave it out and proceed. The output you receive from the database will be based on the information you provided, more information will improve the search. Select the maximum number of species you wish in the search result and activate **Search**.

Some fields are marked with an *. These fields are new and information has not yet been entered for all plants, therefore using this field will severely limit the number of plants found.

At the bar at the bottom of the from you can:

Reset from values, click to delete all new entries in the form; **Search**, to make a search using the values entered in the form; **Load search**, if you have registered as a Ecocorp User through the Main menu heading Register and previously have saved searches then you can retrieve them here; **Save search as**, if you have register as a Ecocorp User through the Main menu heading Register then you can save searches here. Type in the name you wish to give the search in the field below and click the button.

Find plant: here you can search for plants using their ID, preferred scientific name, synonyms or common names in a variety of languages (you can select between: Begins with, Matches or Contains as basis for the search) or select the first letter in their preferred scientific name and browse all name beginning with the selected letter.

You can select to see from 5 to All plants found. In the list you can click the Preferred name of the plants to see their Datasheets. Click the button Find to activate the search.

Register: here you have an opportunity to register details about yourself. The registration is not required to browse Ecocrop. However, Users/Editors can access this area to enter their profile and attain the possibility to save and retrieve entered environments.

Click the button **Register** to submit your registration.

To register, fill in the form **Ecocrop Registration**. All fields are optional except your Name. However, please keep in mind that EcoCrop can best be used if you enter at least your e-mail address as well. You can update your account information using the form **View profile** and click the button **Edit**.

Credits: explain how Ecocrop came into existence, about its development its institutional framework.

When a species record has been identified and opened the Secondary menu item Identity opens as default.

The Secondary menu has the following headings:

Identity: this pages display an ID photo and taxonomically and common names information about the species.

Data sheet: displays plant **Description**, **Ecology**, **Cultivation** and **Uses** as qualitative and quantitative values. The searches performed by Ecocrop is based on the Ecocrop Data sheets. This sheet is in the Edit mode only accessible for Editors. To change to edit mode click Ecocrop at the top of the sheet. Through this sheet all plant species in Ecocrop have their own separate data set. (May 2001, 1970 plants).

Activating the field headings in both the Search form and the Data Entry form provides help and information on the appropriate input for the particular field. The plant data sheets in Ecocrop is an essential part of the EcoPort plant record.

The values in the datasheet, for example for annual rainfall or soil texture, represent the environmental adaptability ranges of plant species. For each environmental factor both the full adaptability range and the optimal adaptability range are given. For example for temperature: the full growing temperature adaptability range, (the full range of temperatures under which the plant will grow), and the optimal growing temperature adaptability range, (the range of temperatures under which the plant will grow optimally). All entries are absolute values.
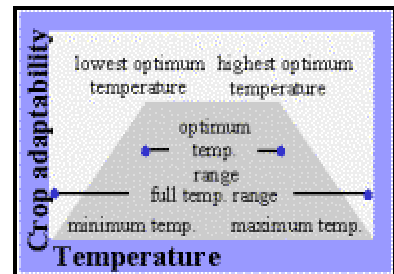
In the Datasheet you will find the button **Alternatives**, click the button if you wish to see a list of plants that can grow under the same ecological conditions as the present species. You can select to see from 5 to All plants found. In the list you can click the Preferred name of the plants to see their Datasheets.

The Data entry form, which is the Data sheet in the Edit mode, has the headings plant **Description**, **Ecology**, **Cultivation** and **Uses**.

Description: select one or more (press and click values to select more) qualitative values from the given fields.

Ecology: enter quantitative values or select one or more (press and click values to select more) qualitative values from the given fields. Note that fields are separated in an **Optimal** value range and an **Absolute** value range.

Cultivation: enter quantitative values or select one or more (press and click values to select more) qualitative values from the given fields.

Cropping System is described as (System + Sub-System + Crop(s) + Level of Mechanisation + Labour Intensity). Crop(s) can be entered either by preferred or common name. If you wish to describe more that one cropping system, click the button **Submit and continue**, then a new row to describe a cropping system will appear.

Uses: select one qualitative values from each of the given fields. A use is described as (Main use + Detailed use + Used part). The standard set up is to describe five uses. If you wish to describe more Uses, click the button **Submit and continue**, then five new rows to describe Uses will appear.

Restore original value: click the button to reset the form to the values present when it was last submitted.

Submit changes: click the button to submit changes to the values in the form, If you close the form without activating the button changes will be lost.

Submit and continue: click the button if you have made changes to the values in the form, which to save them and continue to add/change values. For example add more Cropping system descriptions or Uses.

Notes: this field contain short descriptive information about the species under the headings: **Brief Description**, **Uses**, **Killing Temperature**, **Growing Period**, **Common Names** and **Further Information**. To edit the information, click Notes at the top of the page and Submit after the changes have been made.

EcoPort: click to see the descriptive record of the species in EcoPort.

See examples of Ecocrop records

Crop group	Scientific name	Common name	Code	Editor name
HORTICULTURAL CROPS				
Fruits	Opuntia ficus indica	Cactus pear	8094	Wijnand Swart
Leaf vegetables	Amaranthus hybridus	Amaranth	3086	Schalk Louw
Roots and tubers	Xanthosoma sagittifolium	Tannia	2168	Hermann Pfeiffer
INDUSTRIAL CROPS				
Annual oils	Carthamus tinctorius	Safflower	2514	Peter Griffee

Fiber	Gossypium hirsutum	Cotton	1160	Anand Raj Daniel
Perennial Oil	Cocos nucifera	Coconut	744	Hugh Harries
Sweeteners	Beta vulgaris	Sugar beet	48742	Ancha Srinivasan
Medicinal	Hyssopus officinalis	Hyssop	6852	Peter Schmitz
GRASSLAND CROPS				
Grasses	Brachiaria decumbens	Surinam grass	537	Max Shelton
Legumes	Mucuna pruriens	Mucuna	2350	Thomas Bachmann
FIELD FOOD CROPS				
Cereals	Oryza sativa	Rice	1574	Dat Tran
Grain legumes	Vigna unguiculata	Cowpea	2153	Laurie Kitch