New ABC Sofware

ABC© is a high quality, user-friendly software package for the analysis of costs of investment projects in agriculture. ABC which was originally developed by the Agricultural University of Athens to serve the purpose of extensive Life Cycle Cost Analysis in a multiple crop environment. The package has been widely augmented to provide special scientific support to the Project needs (such as Cost Analysis of a variety of crops and plants of any type and nature as well as the incorporation of industrial activities).

ABC major features include:

1. Multiple Crop/Project support. Users are free to develop projects including as many crops as they wish and to save them in external files (.abc)

2. Multiple cultivating operations (unlimited crop's operations) support.

3. Multiple operation needs (machinery, labour, raw materials, etc.) that will be used in each operation.

4. Unique Database for each project; an embedded module that is being used to support easy handling of creation and update of needs (machinery, labour, fuel, etc.).

5. Reporting module with data export features (eg. Export to MS-Office applications, pdf, etc.). ABC reports cover a wide range of needs, such as report by operation, report by materials used, energy usage, human resources requirements, graphical presentation of major magnitudes,

6. Specialised Operation scheduler module; a feature that helps users to provide frequency and timing information related to how often an operation is taking place within the crop's cultivation plan or during its economic life.

7.…. many other features are available.

ANNUAL EQUIVALENT COST

ABC is analysing production costs year by year and estimates **annual equivalent costs** after taking into account the distribution of costs in the years of the project life. All costs are reported in annual equivalent format.

ABC Quick Start
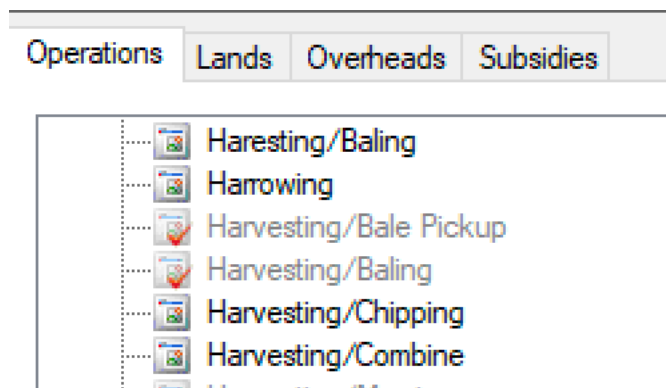
Package structure:

ABC handles many projects or crops at the same time, in one .abc file.
Each project/crop has the following structure

- CROP or PROJECT name
    - OPERATIONS required (as many as needed)
        - NEEDS for each Operation (Machinery-Materials-Labour-Energy)

RENTED operations are treated separately. Only their rental cost is supplied.
The annual cost of LAND and possible OVERHEADS and SUBSIDIES are added to the cost of the project.

LISTS or DATABASES

There are nine LISTS of pieces of information (small databases) which will be used in your projects.
They are located in the right side of the screen with the tabs:

OPERATIONS, LANDS, OVERHEADS, SUBSIDIES and below
MACHINERY, MATERIALS, LABOUR, ENERGY and RENTAL

We should fill them with information that will be utilised afterwards by our projects.
Right click on the header of each list to add new items or click the appropriate icon on the icons banner.
We may add/remove items in all the above lists at any time

OPERATIONS: Only a name is required for each operation you will need to add in our projects.
LANDS: Land types and corresponding Land rent
OVERHEADS: Possible annual cost that is not classified elsewhere in the project
SUBSIDIES: For future use
MACHINERY: Short description, purchase price, remaining economic life, maintenance and insurance annual cost, annual operating hours and type of fuel (must exist in "ENERGY")
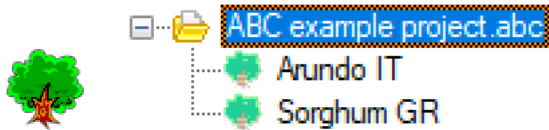MATERIALS: Short description, unit of measurement (eg. kilos, m3, etc) and purchase price
LABOUR: type of labour and cost per hour
ENERGY: Unit of measurement (eg. Lt, kWh, etc) and cost

RENTAL: for operations that are carried out under contract, we specify the cost in the Rental.

INSERT NEW PROJECT /CROP

Click the tree icon, first on the icons banner or right click at the top of this section to add new crop.

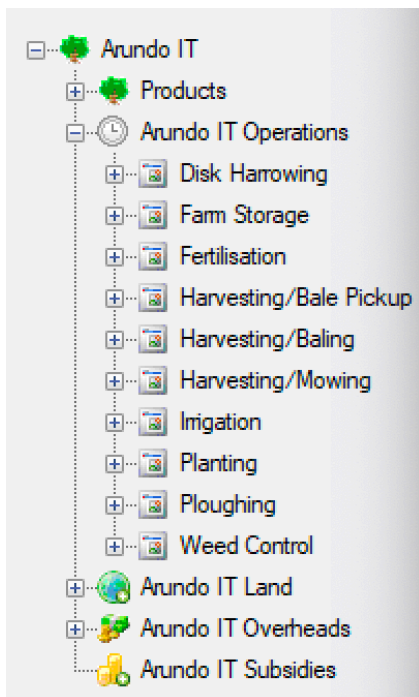GIve a name to our project and add it to the list of Project / Crop, e.g. Arundo IT.

Then, right click on the name of the crop and fill the pop-up form.
In the "Crop Basics" tab, define the size of the land area. Results are being calculated both in per unit of area (eg. per ha per year) and for the whole land area.
In the "Crop Products" tab, we specify the annual productivity of the main product and of any by products.
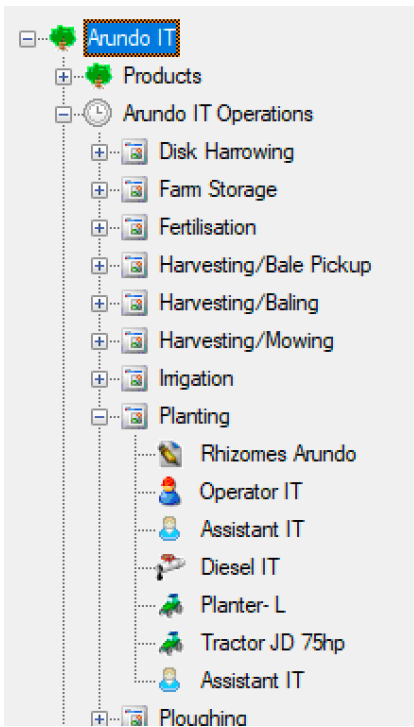
ADD OPERATIONS
After finishing with the initialisation of the new Project/Crop we need to specify the required operations or activities of the project. We do so, by selecting operations from the List of Operations and dragging them into the Project/Crop name.

ADD NEEDS TO OPERATIONS
Drag and drop needs into each operation. E.g. two operators, one tractor, diesel (for the tractor), etc.

Once all or some of the operations are in place, right click on each operation to EDIT, in order to specify the timing of the operation and the quantities of each need. *We can add/remove operations to the project and add/remove needs to the operations at any time*.

Arundo IT Operations

Planting Operation Analysis

Operation Schedule may be set according the Crops life by checking each year that the Operation occurs. Year zero (0) is considered as investment period. After scheduling specify Operation Needs details.

ⓘ Interest rate has been set to 0.05 - (5.00%)

Operation Schedule

Operation Schedule may be set according the Crop's life by checking each year that the Operation occurs. Year zero (0) is considered as Investment (or Establishment) period

0 (Year)	1 (Year)	2 (Year)	3 (Year)	4 (Year)	5 (Year)	6 (Year)	7 (Year)	8 (Year)	9 (Year)	10 (Year)	11 (Year)	12 (Year)	13 (Year)
☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Operation Needs

Operation Needs may be set by specifing the ammount needed annually when the Operation occurs. (Editable cells are coloured with yellow background).

		Operation Need Description	Type	Ammount	Units	Cost (€/ha/yr)*
	🗒	Rhizomes Arundo	Raw Materials	12000.00	rhizome/ha	96.29
	👤	Operator IT	Labour	2.00	hrs/ha	2.29
	👤	Assistant IT	Labour	2.00	hrs/ha	1.02
	🔧	Diesel IT	Energy	22.50	L/ha	1.86
	🚜	Planter- L	Machinery	2.00	hrs/ha	16.74
	🚜	Tractor JD 75hp	Machinery	2.00	hrs/ha	0.67

Total Cost* : 119.90

🔢 * All costs presented here are Annual Equivalents

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In this form, we only need to (a) tick in which years the operation takes place and (b) fill the yellow column with the quantities of each need. The system will automatically estimate the annual equivalent cost of each need and the total cost of the operation.

The total cost of the project/crop is automatically updated after each input by the user and a summary report is shown on the middle of the screen.