

# A multimedia approach to computer aided identification and its application in determining the major weeds of Reunion island : **AdvenRun V.1.0**

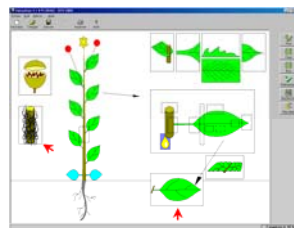
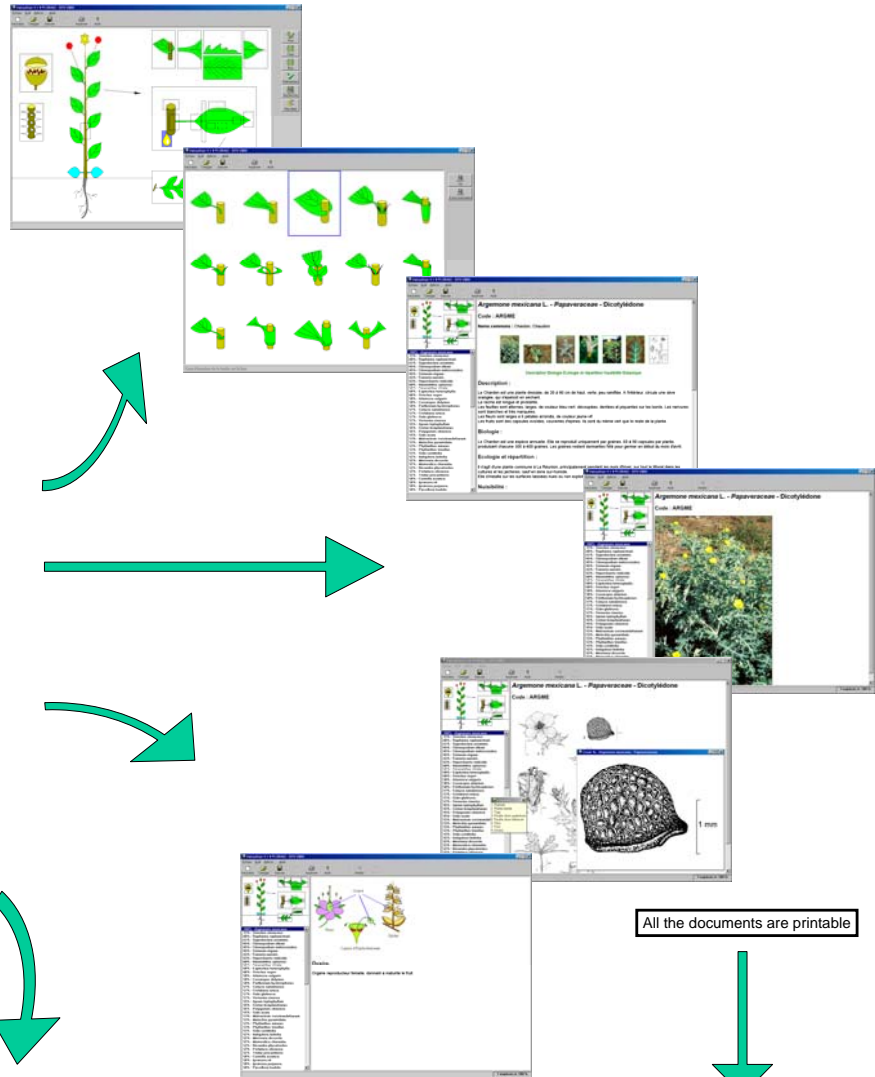
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The difficulty encountered by non-botanists when identifying weeds using standard flora is centred around three major constraints, namely:

- The ability to identify the weeds without its flowers or before it flowers;
- The use of dichotomous key, which cannot tolerate any error and imposes the choice as well as the order of questions; and
- The use of technical terms not understood by the non-specialists.

In order to minimise and resolve these constraints, the identification system in the CD-ROM uses a graphical system which reconstitutes the plants using images. This method has several advantages:

- It only uses drawings instead of technical jargon.
- It provides users the freedom to choose the character that needs to be described.
- Missing information or data are permitted, thus allowing for the identification of incomplete samples.
- Certain level of observational errors are also tolerated.
- At each step of the identification process, a probability of resemblance is calculated for each species. Thus species are sorted by decreasing order of similarity.
- At each step and moment, users could access the photos, the description, and the botanical illustrations of the species.
- All the technical terms used are highlighted and at a click, an hypertext illustrated definition is accessible.
- In case users encounter doubt in the choice of characters (for description), they could ask the program for the most pertinent one.
- If the probability of a species identified is less than 100 percent, the program indicates the characters that contain bad description.
- Descriptions of the species can be available through Internet Website with any type of browser.

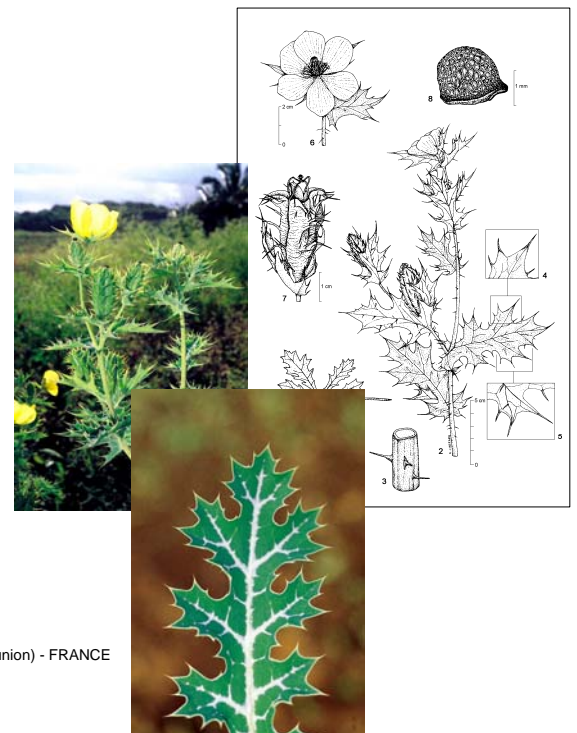


## A tool for :

- Species identification for biodiversity studies
- Young scientist training and capacity building
- Information dissemination

## Applications on :

- Western Ghâts trees, shrubs and lianas
- Flora of mangroves
- Pollen taxa of south India



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