

Weed ID Mobile Apps: Hands-On Training

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Why is weed ID so important?

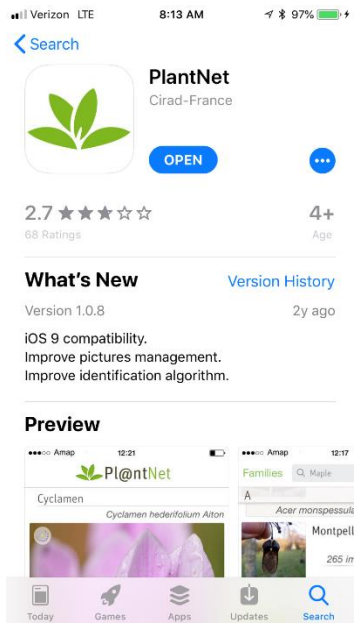
- Weed control strategies/herbicides differ in their selectivity (i.e. which weeds they can control)
 - (a) Grasses vs broadleaf weeds
 - (b) Annuals vs perennials
 - (c) Differences in sensitivity in closely related species
 - (d) Differences in weed control spectrum in closely related herbicides
 - (e) Herbicide resistance and the need for chemical diversity
- Consequences of improper herbicide selection
 - (f) Poor control/reduced yields (quantity or quality) increased weed seed-bank
 - (g) Wasted dollars
 - (h) Environmental impacts of unnecessary applications

What tools are available for weed ID?

- Cooperative Extension
- Weeds of the West (ISBN-13: 978-0756711825)
- Weeds of California and Other Western States (ISBN-13: 978-1879906693)
- PlantNet phone app

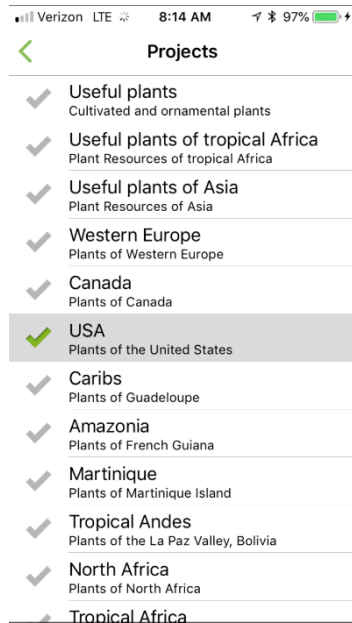
What is the PlantNet app and how do I use it?

The Pl@ntNet app, which is the result of a collaboration among several French institutions, allows you to upload one or more pictures of leaves, flowers, fruits, or bark and then compares your photos to a database of images using visual recognition software. The app then provides the user with a link to a given species' Wikipedia entry in case more information is desired. With respect to image databases, multiple projects are available for users to select from, depending on location and need, including: Plants of the United States, Plants of Canada, Plants of North Africa, Plants of Western Europe, Trees of South Africa, Useful Plants of Asia, etc..



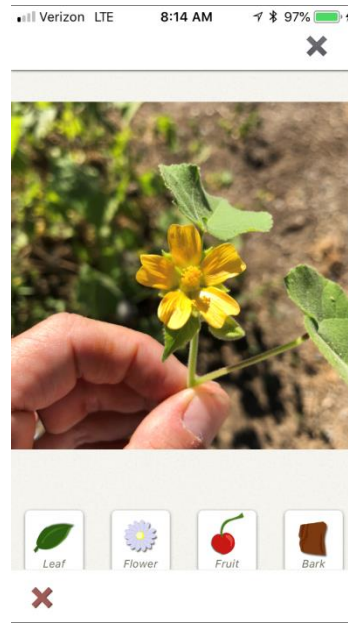
Step 1.

Search for the PlantNet application in your phone's app store. Download and install the app.



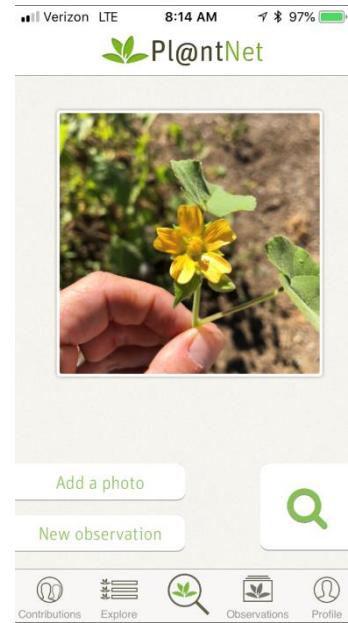
Step 2.

Select the project (i.e. database) that best describes your plant interest and current location (i.e. for the United States, select 'Plants of the United States').



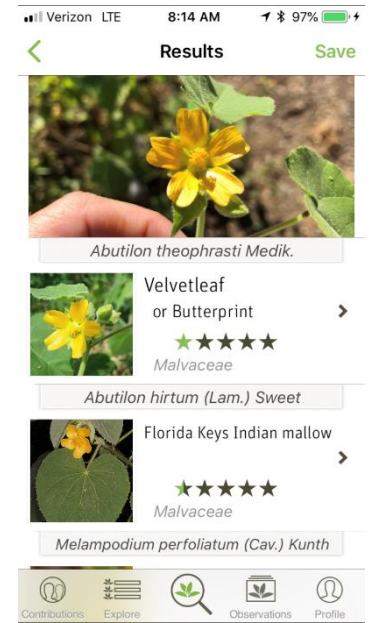
Step 3.

Allow the PlantNet app to have access to your phone camera and photo library. Take of upload a picture and select what plant part you are observing (i.e. leaf, flower, fruit, bark).



Step 4.

You can add as many photos as you want to a single query (i.e. batch submit), just click on the button that says 'add photo'. Once your photos are loaded, submit the analysis request by hitting the magnifying glass icon.



Step 5.

Review results. Links will take you to the Wikipedia page for each individual species. PlantNet will almost always return a result. THAT DOES NOT MEAN THAT IT WILL BE THE CORRECT RESULT. Always doublecheck species IDs.

For more Agronomy and Weed Science information: Website: <http://ucanr.edu/sites/AgronomyWeedScience/>

Blog: <https://ucanr.edu/blogs/SJVAgronomyWeedScienceBlog/index.cfm>