PET-Crops App

A Pictorial Evaluation Tool (PET) for Crop Assessing

2016

PET-Crops is a Pictorial Evaluation Tool in app form using images (photo-indicators) to estimate crop yield at harvest-time.

- PET-Crops users compare standing crops seen in harvestable fields with images of the same/similar crops displayed in the PET-Crops gallery.
- PET-Crops users select the image with the closest fit to the field in view and tap score for the image to record the selection.
- PET-Crops records the tap and collates, sorts and analyses the data into average yields for all the crops seen.
- PET-Crops yield data are presented in tables by transect (journey) and crop for downloading/sending to data banks.

PET-Crops images *called photo-indicators*, are arranged in a progressive series of production yields in tonnes/hectare, from very high to very low, for each crop. The yield range is represented by colour bands 'red' for high, 'yellow' for medium and 'blue' for low.

PET-Crops photo galleries show *photo-indicators* for each crop at two levels of accuracy, from-a–distance and close – up. Each image is connected to a yield value.
- From-a-distance (f-a-d), shows the crop from a distance, giving you an idea of the health of the crop, number of plants in the field, uniformity of growth, whether the field is weedy and how well harvested parts have developed.
- The f-a-d yield value in tonne per hectare (t/ha) is an approximation based on the middle of the range covered by the colour code.
- The close-up, used only during walking transects, shows the harvestable crop in an area of 1 m^2. The extent of cover, size and number & quality of heads and stems are shown in the photograph.
- The yield value in t/ha is the actual dry matter of the grain produced by the 1 m^2 shown in the close-up image. Options to score above; below; in-between the image values, or to score zero are offered.

PET-Crops allows the recording of data from observations made during *either walking or driving transects*. Scores are recorded, sorted and analysed at two levels:
a) During driving transects the weighted average yield is calculated by recording the frequency of appearance of each colour code for each crop noted during the journey, multiplying the scores by the indicator's value, summating and dividing the total for that crop by number of scores used.
b) During walking transects the weighted average yield is calculated by multiplying the yield value by the frequency of appearance scores in close up at one of eight (8) possible levels within each colour band viz:
     a) three levels matching the images;
     b) above the highest or below the lowest (2);
     c) in between the three images (2);
     d) zero score - i.e. complete crop failure.

BASICALLY- Look at the crops- Select matching image- Tap screen and the App records, stores and analyses the details.

We suggest you read the User Guides for the PET-Crops App (listed under the HELP tab) carefully before leaving for the field.