Plant breeders across the world face limitations when implementing barcodes into their research programs. Barcodes can help breeding programs increase quantity and throughput when managing samples and seed stocks, but any gains in efficiency are predicated on breeding programs having the tools to read and process large numbers of barcodes.

Verify, a new app from the PhenoApps development team, makes integrating and utilizing barcodes a simple process by combining a simple and intuitive interface with Google's new MobileVision library. Verify imports a list of entries and utilizes the device camera or external hardware to scan a sample barcode and identify whether the scanned barcode is present in the imported list.

In addition to basic data retrieval, Verify can interact with the list of entries in different ways that are helpful for breeding programs. Verify can 1) check that the scanned barcodes match the order of the imported list, 2) remove items from the list as they are scanned, 3) visually track items as they are scanned, and 4) validate pairings between scanned items. Verify also tracks how often a barcode has been scanned, when a given entry was last scanned, and who scanned the barcode.

The simple function and design of Verify and the compatibility with a diverse range of Android devices make this application easily accessible and specifically useful to plant breeders in developing countries who are often tasked with manually validating barcodes.

Verify is freely available through the Google Play store.

FEATURES
- Fast data retrieval and response time
- Scan barcodes with external hardware or built in camera
- View and navigate to individual entries
- Compatible with most barcode formats

Verify was created as part of the PhenoApps project, led by Drs. Jesse Poland and Trevor Rife at Kansas State University with support from NSF Basic Research to Enable Agriculture Development (BREAD) (FAIN - 1543958)