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### Meeting Information

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## P1288

### Crop Ontology: Integration of Standard Variables


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The Crop Ontology (CO, <http://www.croponontology.org/>) is a resource of the Integrated Breeding Platform (IBP, <http://integratedbreeding.net/>) providing breeders with crop specific terms for fieldbook edition and data annotation. Until May 2015, a plant phenotype was annotated with 3 CO identifiers for the trait, the method and the scale, respectively. Yet, breeders' fieldbook and most phenotypic databases are designed to annotate a datapoint with only one identifier. To meet the need of providing one single identifier to an observation variable, the CO and IBP teams have worked on integrating the notion of variable into the CO. This has led to a thorough revision of the structure of the Trait Dictionary (TD) template. The TD template is a user-friendly xls file that is used to submit terms to CO which are then stored in the IBP Breeding Management System and other information systems (NextGen, Agtrials...).

The most notable changes to the TD template are the addition of the term type "variable" and the decomposition of a trait into an entity and an attribute so as to formalize the trait definition and to foster the mapping with external ontologies (TO, PO, PATO, CHEBI, EO, PDO, GO...). Guidelines document how to post-compose variables.

Along with the partners, the CO and IBP team have been working on formatting and curating the TD of pigeonpea (ICRISAT), cowpea (IITA), wheat (CIMMYT), groundnut (ICRISAT/USDA), yam (IITA), chickpea (ICRISAT), lentil (ICARDA), cassava (IITA), soybean (IITA/USDA), common bean (CIAT), rice (IRRI), pearl millet (ICRISAT), sorghum (CIRAD/ICRISAT), and maize (CIMMYT).

#### Handouts

 [Poster\\_CO\\_variable\\_160104.pdf](#) (1.2 MB)

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