



Student Collaborative Organic Plant Breeding Education

The Common Bean Project

Since 2015, the SCOPE common bean team has worked to develop varieties that combine the high-value culinary properties of heirloom beans with the agronomic qualities of modern varieties. By the 2018 field season, the SCOPE common bean team focused on a replicated multi-location trial of advanced generation materials that had been promising in past field seasons. Ten advanced generation breeding lines, five heirlooms, and three control varieties developed at Michigan State University and UC Davis were grown in three replicates at each of three field sites. Primary target traits for these trials were yield, bean common mosaic virus (BCMV) resistance, and seed color. Early season growth rate is important for weed competitiveness in common bean, and this was evaluated using a small Unmanned Aerial System (sUAS, or drone). One of the breeding lines was tasted by a panel of chefs at a farm in San Diego, where it was evaluated favorably and out-performed several other heirlooms in flavor. Public release of breeding lines could be possible starting around 2020.



Get Involved

The SCOPE project is currently seeking collaborations with growers and seed producers for on-farm trials. We are also looking to expand to new crops that are integral to the California organic seed industry. To become part of the SCOPE network of on-farm trials, or propose a collaboration for a new crop, contact: asaichaie@ucdavis.edu.

For more information on the projects, visit: plantbreeding.ucdavis.edu