Grand Valley State University will conduct summer research on managed honey bee colony nutrition and develop mobile phone application for beekeepers.

The GVSU beekeepers are a student organization at Grand Valley State University. They manage a few hives on the Sustainable Agriculture Project on the main Allendale campus as well as on the Meijer Campus in Holland. For the past 2 years, students have consistently observed that the hives in Holland always seem to be growing better, fuller, healthier and at the end of the season render much more honey. Students have been questioning their beekeeping practices and made observations regarding both location, mainly focusing on forage availability.

Emily Noordyke, a biology student at Grand Valley and an active member of the GVSU beekeepers club applied for a Summer Student Scholar (S3) grant in collaboration with Prof. Anne Marie Fauvel. The team was awarded $6000 for their summer research titled: 'Quantitative and Qualitative Nutritional Analysis of GVSU Managed Honey Bee Colonies'. They will be monitoring hive weight and collect pollen weekly. The hive weight will provide information about nectar storage and pollen they will weigh to assess quantity, sort to assess diversity and send samples for a crude protein analysis. Two hives will be sampled in Allendale and compared to a control in the Holland yard. They will conduct regular hive assessments to evaluate colony growth and health. Preliminary results will be presented and discussed at EAS in New Jersey in July.

In addition, Noordyke and Fauvel enlisted GVSU Prof. Jonathan Engelsma from the School of Computer and Information Systems and his summer student Bekah Suttner For a related project. They were awarded an additional $6000 to develop a mobile application for beekeepers to digitally record pollen collection and provide a cloud-based repository for pollen information. The goal is to produce pollen availability maps at the local, state and potentially national level. This information could also be correlated to colony mortality.