

Question 7 Experimentation Description

Purdue University intends to work with the Microsoft Corporation by deploying, testing, and validating the feasibility of narrowband TV white space (NB-TVWS) radios as a means of collecting agricultural sensor data across a large farm area. To complete this research, Purdue will install Microsoft FarmBeats sensor hardware (with integrated NB-TVWS radios) in and around the Agronomy Center for Research and Education (ACRE) farm along with a fixed NB-TVWS base station near the Indiana Corn and Soybean Innovation Center building (southern end of farm). The objective of the project is twofold:

1. Report on the overall feasibility and usability of NB-TVWS.
2. Provide real-time data to on-going research projects (to gather practical experience with the technology)

We hope that our analysis of feasibility along with real user testimonial will provide working lessons learned that will inform and shape new products and technologies. We expect that some improvements may be developed and deploy at this same test bed site in the future.