ASA–CSSA–SSSA member Dr. John Kruse, research agronomist with Georgia Pacific in Decatur, GA, and ASA–CSSA–SSSA member Dr. David Weindorf, assistant professor at the Louisiana State University Agricultural Center in Baton Rouge, traveled to Bayonnais, Haiti on 10–14 August to provide agronomy outreach to farmers in the region.

The Organization of the Christian Force in Bayonnais had appealed to ASA President Mark Alley and the ASA membership earlier in the year for agronomic expertise. Bayonnais is an isolated, mountainous farming region approximately 96 km to the northwest of Port Au Prince. The region is characterized by steep slopes, cobbly/bouldery soils derived from limestone, mixed shrubs, and plantain and mango trees. Water is channeled from mountain streams to the village via concrete aqueducts. There is no electricity in the valley. Farming in the area consists primarily of rice in the lowlands and corn on upland slopes, divided into small parcels. Planting and harvesting are conducted with hand tools, and there is no access to commercial fertilizer.

Upon arriving, the team evaluated a 200-m elevational transect from the valley stream to the top of upland hills, evaluating soil texture, pH, salinity, N, P, and K. The soils were consistently calcareous, with a pH of 7.2–7.8. The team trained local agronomists in colorimetric testing of nutrients using field-portable kits that showed N and K were moderate to high, but P was low. The P limitation also manifested itself as purple discoloration on area corn.

The team set out to identify available nutrient streams to correct the deficiency by evaluating chicken, goat, and hog manure, the latter showing high P levels. The team set up a composting demonstration as a means of concentrating available nutrient sources from the community (food scraps, manure, green waste, etc.). The local school invited Kruse and Weindorf to lecture to a group of 75 12th graders on agronomic principles where they discussed basic concepts in soil science, nutrient management, and soil fertility.

Future Needs Discussed

The trip concluded with a meeting in Port Au Prince, Haiti with Dr. Myrlene Chrysostome, Haitian soil scientist, where funding opportunities, research projects, and agronomic development that could benefit Bayonnais and the nation of Haiti as a whole were discussed. Specifically, Chrysostome expressed an interest in watershed management, reforestation, and collection of georeferenced soil physicochemical data, of which none is currently available.

The team agreed that the two most pressing issues that could be addressed with expertise from agronomists and soil scientists are building a foundation of georeferenced soil data that would inform reforestation and agronomic efforts and the formation of a basic research and extension framework for the island nation. This would include a soil testing lab, research sites that test optimization of fertility practices and environmental effects of cropping systems, and locally trained Haitian agronomists that could transfer knowledge and research findings at a regional and local level.