

# Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program

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# Trip Report: Haiti

 $1\bar{4} - 2\bar{2}$  July 2012

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<b>Purpose of Trip</b> :	Visit CAPS, cover crop demonstrations, and maize field trial sites
	established with Zanmi Agrikol and Caritas-Hinche for the 2012 season.
	Evaluate status of research plots, and conduct Conservation Agriculture
	Workshops at our three research locations.

<u>Sites Visited</u>: Port Au Prince, Mirebalais, Cange, Hinche, and research sites at Corporant, Boucan Carré and Maïssade

#### **Description of Activities**

The Virginia Tech team (Thompson, Thomason, Mulvaney, in-country assistant coordinator Dilou Prospere) visited each of the three field sites and evaluated the status of CAPS and maize variety trials. In addition, the team successfully conducted Conservation Agriculture Workshops at our three research locations.

The maize crops for the 2012 CAPS field experiments were planted in May at Corporant, Lachateau (near Boucan Carré), and Maïssade. This maize should be ready for harvest during August or early September. The maize crops for the CIMMYT open-pollinated and hybrid trials were planted on about 2 June at Maïssade, 12 June at Corporant, and 15 June at Lachateau. The VT team was able to visit each field site, observe the condition of the CAPS field plots, and visit with the agronomists about progress and needs. The maize crops are in good to very good condition at Corporant and Lachateau and in poor condition at Maïssade. The poor crop condition at Maïssade appears to be due to (probably in this order) drought stress, P deficiency, and foliar feeding by armyworms and slugs.





We also discussed fall 2012 plans with agronomists at each location. These plans include 1) maize harvest and data collection, 2) tillage or no-tillage of CAPS plots as appropriate, and 3) planting cover crops in CAPS plots. We emphasized that the plots must remain in the same locations in the experimental fields. We also discussed the possibility of some black bean trials for this fall. This will be discussed more thoroughly by email.

The most important achievement of this trip was to conduct a Conservation Agriculture Workshop at each of the three experimental sites. We visited each site the day before the workshop to set up equipment and demonstrations. Each workshop was designed to last three hours and was preceded by a light snack and followed by a full lunch. The outline of each workshop was as follows:

- 1. Greeting and welcome from a partner agronomist and SANREM LTRA-6 PI Thompson
- 2. "Principles of Conservation Agriculture" by Mulvaney
- 3. "Limitations and adoption of Conservation Agriculture" by Thomason
- 4. Questions and Answers
- 5. Field tour
  - a. Variety trials of CIMMYT and local maize by a partner agronomist
  - b. Automated weather station demonstration by Dilou Prospere
  - c. Demonstration of erosion reduction with soil cover
  - d. Demonstration of aggregate stability of untilled soil
  - e. Demonstration of water infiltration into soil
  - f. CAPS plots
  - g. Cover crop plots ( $4 \text{ m}^2$  plots of potential cover crops)
- 6. Questions, answers, discussion
- 7. Lunch

Attendance at the workshops was as follows:

Corporant, July 17	25 students from the CFFL (Centre Formacion Fritz Lafontant) agri- technical school, plus 25 farmers. Approximately 40% of attendees were female, 60% male.		
Lachateau, July 18	67 farmers and local community members. Approximately 50% of attendees were female.		
Maïssade, July 20	90 farmers and local community members. Thirty-five percent of attendees were female.		

During our presentations we stressed the need to find site-appropriate CAPS methods, and the need for flexibility in testing and implementing CA on their farms. We also stressed that this LTRA will run for two more years, and we will have more complete information to share as the experiments proceed. The attendees expressed interest in the subject matter and we fielded many questions. Questions tended to focus on weed control, cover crop selection, and planting methods to be used with conservation agriculture. Several participants indicated that they would implement some of the suggestions.

#### Key accomplishments:

- 1. Met with representatives of key partners (Ministry of Agriculture, Zanmi Agrikol, Caritas-Hinche).
- 2. Visited all three experimental locations for this project (Corporant, Lachateau, Maïssade) and met with all agronomists affiliated with the project.
- 3. Met briefly with Guillaine Warne, Zanmi Agrikol manager on Sunday, July 15.
- 4. Conducted Conservation Agriculture Workshops jointly with partner Zanmi Agrikol agronomists (Reginald Cean, Jean-Phillipe Dorzin, Jean Louis Stenio, Ferrest Sonneus, Larose Deus) on July 17 at Corporant and on July 18 at Lachateau.
- 5. Conducted a Conservation Agriculture Workshop jointly with partner Caritas-Hinche agronomist Evans Bien-Aime on July 20 at Maïssade.
- 6. Visited with Caritas personnel at Hinche (Augustin Guedry, Evans Bien-Aime, Fr. Romel Eustache) to discuss plans for fall 2012 activities.
- 7. Verified that WatchDog 2000 weather stations with data logging capability are operating properly at the three experimental locations.
- 8. In-country assistant coordinator Dilou Prospere took an active role in conducting the workshops, by translating from English to Kreyol and giving presentations independently.
- 9. Recovered the 'time-zero' soil samples from Corporant and Lachateau for transport to the USA.
- 10. Mulvaney collected soil samples for bulk density and for future P isotherm experiments from each site.
- 11. Trained Dilou Prosper in soil sampling methods, maize growth stages, and field scouting/reporting.

## Field Experiments and Plans:

We observed the cover crop-tillage (CAPS) experiment plots at the two ZA locations (Corporant and Lachateau--Boucan Carré), discussed progress, and agreed on management practices for the rest of the season. We also observed the open-pollinated and hybrid maize trials at each of the three sites. The VT team met with Caritas Agronomists Guedry and Evans at the Caritas office in Hinche on July 21. We inspected the CAPS field trial plots and CIMMYT maize open-pollinated and hybrid test plots at Maïssade.

The ZA agronomists expressed interest in more black bean seed (especially 'Aifi Wuriti', 'Arroyo Negro' and 'Zorro') for distribution to farmers. It was agreed that the VT team will search for seeds and will be willing to give modest quantities in exchange for farmers' sharing yield results.

## Suggestions, Recommendations, and/or Follow-up Items:

- 1. Consider revising cover crop selection for CAPS experiments in light of the performance of the 'test' cover crops planted for the workshops. Have cover crop seeds in the hands of agronomists during early September (Thomason, Thompson)
- 2. Ensure that stand counts have been completed for all rows in CAPS and variety trials at each location (Prospere, Thomason)

- 3. Attempt to establish communication with Caritas 'field agents' who appear to be closely involved with our research at Maïssade. Thompson will call Bill Slowinski about this.
- 4. Obtain 'Zorro' black bean seeds for distribution to agronomists. Develop protocol for requiring farmers receiving seeds to return data on yield, quality, etc. (Thomason)
- 5. Consider the possibility of adding fertilizer (organic and/or inorganic) to the CAPS and maize plot areas (after maize harvest) at Maïssade. Maize is obviously P-deficient, although this is undoubtedly exacerbated by severe drought stress. (Thomason, Thompson)
- 6. Refine detailed protocols for maintenance, planting, etc. of CAPS plots. Share these with partner agronomists. (Thomason, Thompson, Mulvaney)
- 7. For the FY 2013 budget year, include explicit reporting expectations for payment of partner invoices. (Thompson)
- 8. Ask Zanmi Agrikol and Caritas to invoice Virginia Tech for room and board charges when Dilou Prosper travels to the Central Plateau and stays at Cange (ZA) or Papay (Caritas). This will make travel much cheaper for Prospere, who has yet to be reimbursed for travel expenses. (Thompson)
- 9. Develop and launch a SANREM Haiti website. (Thompson)
- 10. Continue to seek solutions for transport for Dilou Prospere
- 11. Weed, residue, seeding management studies plans and protocols to be developed
- 12. Initiate plans for train-the-trainer seminar for next spring; what tools do they need?
- 13. Plans for next trip September to take cover crop seed to Agros.

Program type (workshop, seminar, field day, short course, etc.)	Date	Audience	Number of Participants		Training Provider (US university, host country	Training Objective
			Men	Women	institution, etc.)	
Workshop at Corporant, Haiti	June 17, 2012	Students at CFFL Agri- Technical School, Farmers	25	25	Virginia Tech, Zanmi Agrikol	Conservation Agriculture Methods: Demonstration and Application
Workshop at Boucan Carre, Haiti	June 18, 2012	Farmers and local community	34	33	Virginia Tech, Zanmi Agrikol	Conservation Agriculture Methods: Demonstration and Application
Workshop at Boucan Carre, Haiti	June 20, 2012	Farmers and local community	58	32	Virginia Tech, Zanmi Agrikol	Conservation Agriculture Methods: Demonstration and Application