CAPS Survey Report

Year:	2013-2014	
State:	Oklahoma	
Cooperative Agreement Name:	Infrastructure	
Cooperative Agreement Number:	13-8444-0591-CA	
Project Funding Period:	July 1 st , 2013 through June 30 th , 2014	
Project Report:	CAPS Infrastructure Report	
Project Document Date:	December 19, 2014	
Cooperators Project Coordinator:	Elizabeth Nguyen	
Name:	Elizabeth Nguyen	
Agency:	Oklahoma Department of Agriculture Food and Forestry	
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Quarterly Report	
Semi-Annual Accomplishment Report	
Annual Accomplishment Report	

A. Compare actual accomplishments to objectives established as indicated in the workplan. When the output can be quantified, a computation of cost per unit is required when useful.*

Activities:

- Committee Service:
 - State CAPS Advisory Council
 - Oklahoma Pest Action Council
 - Oklahoma Invasive Plant Council- Board of Directors
 - Oklahoma Invasive Species Conference Planning Committee
 - Southern Plant Board Nominations Committee

Other Survey Work:

- Emerald Ash Borer Survey
- Karnal Bunt Survey
- Wood Commodity Survey
- Imported Fire Ant Survey
- Thousand Cankers Disease Survey
- Input data for National Honey Bee Survey into IPHIS
- Japanese Beetle Trapping
- Sweet Potato Weevil Trapping
- Imported Fire Ant Survey in Pittsburg County for the American Burying Beetle Conservation Bank, LLC
- Asian Gypsy Moth Delimiting Survey
- Asian Defoliator Survey
- Submitted all 2014 work plans before August 1st
- Submit Farm Bill FY14 Suggestion for Asian Defoliator Survey
- Monitor and remove 104 Emerald Ash Borer Traps, 48 oak traps and 28 pine traps

Outreach:

- Interviews (TV/Radio/Newspaper/Magazines):
- Outreach materials (Pamphlets/brochures/posters):
 - Oklahoma Invasive Species Conference poster
 - Oklahoma State Park Managers Meeting- posters and pamphlets for distribution at state parks
- Publications
 - Survey instruction manuals
- Public Service Announcements (PSA):

Meetings:

- Conference calls:
 - Oklahoma Invasive Plants Council conference call
 - Oklahoma Invasive Pest Conference Planning conference call

Conferences:

- Oklahoma Invasive Species Conference
 - Presented a poster of 2013 CAPS results and 2014 surveys in progress.
 - Served on the planning committee.
- Oklahoma State Park Managers Meeting
 - Presented CAPS results for 2013 and ongoing projects for 2014 to Oklahoma State Park Naturalists. Also led a discussion on how state parks can assist with survey work as well as public outreach. Distributed outreach materials to State Park Managers and Naturalists.
- Oklahoma CAPS Advisory Council Meeting
 - Led a meeting with the CAPS Advisory Council to present what has been accomplished with CAPS thus far, and to discuss current pest issues and possible survey options.

Webinars

- Farm Bill FY14 Webinar
- NAPIS 3.0 Webinar Series
- NACD EAB Webinar
- IFA- Shipping Hay Webinar
- 2014 Survey Supply Ordering System Training Webinar
- EAB University Webinar: Building an EAB Management Practice in Milwaukee

• Training:

- Trained CPS Plant Protection Specialists to conduct Emerald Ash Borer, Wood Commodity, Imported Fire Ant, and Thousand Cankers Disease surveys and to use GPS unit to store trap locations.
- Trained by Blaine Powell and Everett Dale to conduct Asian Gypsy Moth Delimiting Survey
- Trained Agricultural Resource Inspectors to conduct Emerald Ash Borer and Asian Defoliator surveys.
- Trained university intern to conduct Imported Fire Ant survey and to use GPS unit to store trap locations.

Other:

- Coordinated IFA compliance inspections
- Issued IFA quarantine violations and stop-sales
- Final reports and data were submitted for all CAPS surveys in 2013.
- Conducted nursery grower and dealer inspections.
- Conducted worker protection standard inspections.
- Purchased survey supplies.

В.	If appropriate, explain why objectives were not met.* N/A Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000.* N/A				
C.					
D. 	Supporting Documents • Financial Reports				
*in	ndicates information is required per 7 CFR 3016.40 a	and 7 CFR 3019.51			
Ар	proved and signed by				
Co	operator	Date:12/19/2014			
— AD	OODR	Date:			

July 2013

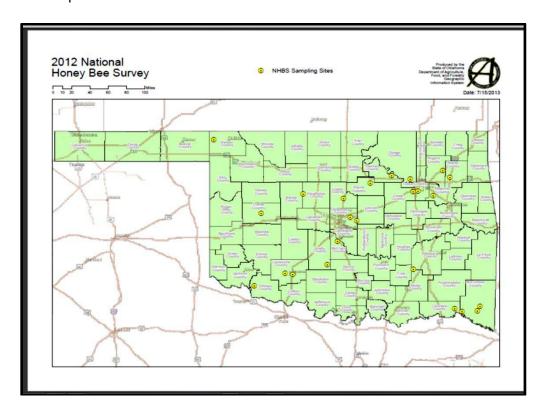
National Honey Bee Survey (#12-8440-1571)

Twenty-four (24) apiaries were visited and samples of bees were taken from each. There were 24 live bee samples and 24 preserved bee samples. There were also ten (10) pollen samples taken and sent for pesticide analysis. The samples were taken from 21 counties throughout the state. See map below. Five migratory beekeepers were sampled.

Samples were submitted to USDA Agricultural Research Service and the University of Maryland for analysis for the presence of bee mites, nosema, foulbrood, small hive beetles and other bee diseases and bee viruses.

The 24 bee samples taken to test for Africanized honey bees were sent to the Plant and Insect Diagnostic Lab at Oklahoma State University, Stillwater Oklahoma where the DNA PCR test was done.

All sample records have been entered into IPHIS.



August 2013

Cooperative Agricultural Pest Survey (CAPS) 2014 Surveys

Cooperative agreements were submitted for the following surveys:

Wood Commodity Survey (#14-8444-1446-CA)

The Wood Commodity Survey is performed with funds from a cooperative agreement with the USDA APHIS. This survey includes 2 hosts: oak and pine. Four field personnel will set 120 traps at 40 trap sites for oak pests. Traps will be set in Osage, Tulsa, Creek, Payne, Ottawa, Delaware, Mayes, Wagoner, Adair, Cherokee, Sequoyah, Haskell, Oklahoma, Comanche, Caddo, Murray, Atoka, Pittsburg, and Latimer Counties. Traps will be installed at the beginning of May, checked every two weeks, and removed in August. Each trap site will have 4 different traps for:

- Spodoptera littoralis, Egyptian cottonworm (40 bucket trap)
- Thaumototibia leucotreta, False coddling moth (40 wing trap)
- Adoxophyes orana, Summer fruit tortrix moth (40 delta trap)
- Epiphyas postvittana, Light brown apple moth (40 Jackson trap)

Visual surveys will be conducted for the following pests at each oak trap location looking for visual signs of damage:

- Oak splendor beetle, Agrilus biguttatus
- Asian longhorned beetle, Anoplophora glabripennis
- European oak bark beetle, Scolytus intricatus

Pine-host traps will be limited to Sequoyah, Cherokee, McCurtain, Latimer, Leflore, Pittsburg, and Pushmataha counties. 40 pine traps at 20 sites for pine pests will be set in addition to oakhost trap. Each trap site will have 2 different traps for:

- Monochamus alernatus, Japanese Pine Sawyer (20 lindgren with the AP+EtOH lure)
- Tomicus destruens, Lesser Pine Shoot Beetle (same as Japanese Pine Sawyer)
- Hylobius abietis, Large Pine Weevil (same as Japanese Pine Sawyer)
- Hylurgus ligniperda, Redhaired Pine Bark Beetle (same as Japanese Pine Sawyer)
- Tomicus piniperda, Pine Shoot Beetle (20 lindgren with the AP(slower release)lure

Elizabeth Nguyen, State Survey Coordinator, will train CPS Plant Protection Specialists to set traps, store GPS locations into Garmins, and fill out data spreadsheets.

Emerald Ash Borer (EAB) (#14-8444-1141-CA)

This year ODAFF has been tasked with setting 678 large purple sticky traps in 49 counties using the Forest Health Technology Enterprise Team (FHTET) model and will place traps according to the USDA Forest Service risk assessment guidelines. Elizabeth Nguyen, State Survey Coordinator, will train CPS Plant Protection Specialists and Agricultural Resource Inspectors to set EAB traps, store GPS locations into Garmins, and fill out EAB site sheets.

The lure of each trap will be replaced once eight weeks after it has been installed. During the lure change, the traps will be screened for buprestids and suspect samples will be submitted to APHIS for identification. Installation dates, sample submission dates, trap removal dates, GPS locations, and pest status information will be collected and submitted to IPHIS.

Karnal Bunt (#13-8444-0111-CA)

Wheat samples are taken to verify the absence of Karnal Bunt disease in wheat surveyed in counties across Oklahoma. The benefit of the absence of Karnal Bunt disease is for Oklahoma's exporters. This survey is conducted in order for Oklahoma wheat to continue being exported to foreign countries. Forty-two (42) wheat samples will be taken from 37 grain elevators in 14 counties. The number of samples taken is based on the average of wheat bushels harvested in Oklahoma over the last five years. For every million bushels harvested in a county, one sample is taken.

Red Imported Fire Ant (RIFA) (#13-8444-0004-CA)

The RIFA agreement consists of two approaches. The quarantine approach consists of inspecting regulated articles (soil, plants, sod, hay, soil-moving equipment) from quarantined out-of-state-nursery stock and from Oklahoma grown nursery stock. The survey approach consists of setting bait tubes in counties that border the quarantined counties in Oklahoma, as well as additional counties that have had recurring positive RIFA samples.

2014 CAPS Survey Proposals

The following are the final proposals for CAPS surveys for 2014:

	APHIS Share	Cooperator Share	Total
Wood Commodity	\$14,163	\$0	\$14,163
EAB	\$35,985	\$0	\$35,985
IFA	\$60,114	\$10,650	\$70,764
Karnal Bunt	\$6,104	\$0	\$6,104
Infrastructure	\$51,697	\$1,920	\$53,617
Total	\$168,063	\$12,570	\$180,633

Shipping Hay out of the IFA Quarantined Areas Webinar

A webinar on Monday, Aug. 19 discussed how to keep fire ants from hitchhiking on hay to areas that do not have fire ants. Dr. Charles Brown, national policy manager with the United States Department of Agriculture discussed current regulations involved with moving hay out of the fire ant quarantine area and hay storage protocols that producers can follow to minimize the chances that fire ants get into the hay. The webinar also addressed what a producer should do upon receiving a load of infested hay.

September 2013

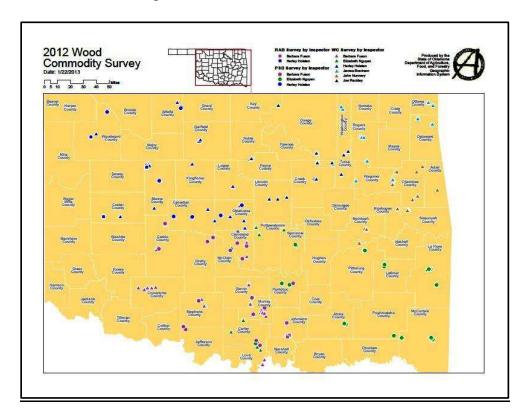
Thousand Cankers Disease Survey (#12-8440-1579-CA)

Four field inspectors surveyed stands of native walnuts for Walnut Twig Beetle. The Thousand Cankers Disease (TCD) survey targets camping destinations and nurseries and includes wood boring insects. Locations of walnut stands were the same stands used in the 2012 visual survey of TCD.

Inspectors set Lindgren traps at 26 sites, three traps at each site across Oklahoma. Traps were set the first week of April in Blaine, Caddo, Canadian, Cherokee, Delaware, Muskogee, Sequoyah, Garvin, Murray, Pontotoc, and Wagoner Counties. The traps were serviced every two weeks, re-lured every month and removed at the end of July.

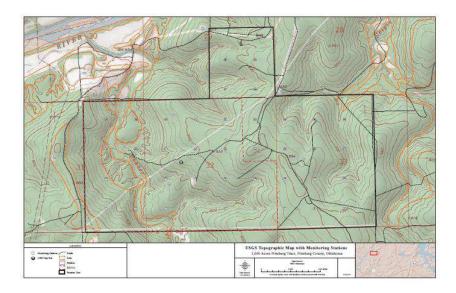
A Wood Commodity manual was given to each field surveyor. It included a brief narrative of the purpose of the survey, trapping protocol, pictures of insects with associated descriptions, sampling protocol, and instructions on how to enter data into an excel spreadsheet modified from the NAPIS spreadsheet.

Samples were submitted to Oklahoma State University for identification. All submitted samples were found to be negative.



October 2013

Elizabeth Nguyen was contacted by Cliff Sunda, Resident Forester for Working Lands Investment Partners, LLC, to conduct a red imported fire-ant survey on 1,600 acres of land that is owned by the American Burying Beetle Conservation Bank, LLC. The project, overseen by the US Fish and Wildlife Service, requires a red imported fire-ant survey to be performed annually. Based on the inspection, no fire ants were found in the areas that were surveyed. Bait tubes were set out in areas that were road-accessible evenly across the length of the property. All bait tubes were found to be negative for red imported fire-ant. Visual inspections of the survey areas were also conducted. All survey areas were found to be negative for red imported fire-ant. Elizabeth Nguyen also gave Cliff Sunda recommendations for survey protocol to be performed the following years.



November 2013

Farm Bill

USDA's Animal and Plant Health Inspection Services opened the 2014 Farm Bill 10201 suggestion period. Farm Bill 10201 funding is used to enhance invasive pest surveys, target domestic inspection activities, strengthen pest identification, safeguard nursery production, conduct outreach, and enhance mitigation capabilities. One survey was submitted for an Asian Defoliator Survey for \$11,913. The survey details that the Oklahoma Department of Agriculture, Food, & Forestry will implement three field personnel to set 130 red paper delta traps with Gypsy moth string lure at areas surrounding Oklahoma military bases and retail suppliers that receive large shipments from Asia.

The Asian Defoliator Survey encompassed trapping for three different pests:

- Asian Gypsy Moth (AGM) Lymantria dispar asiatica
- Japanese Gypsy Moth (JGM) Lymantria dispar japonica
- Hokkaido Gypsy Moth (HGM) Lymantria umbrosa

2014 Survey Supply Ordering System Training

Training webinars for the survey supply ordering system in IPHIS. John Crowe led the training that covered placing orders, reviewing orders, and approving orders in IPHIS.

Farm Bill Section 10201 FY14 Help Session Webinar

The Farm Bill Management Team offered training webinars to assist in submitting a suggestion for consideration for the FY14 Farm Bill. The webinar included an overview of the different goal areas and how to submit a suggestion.

Oklahoma Pest Action Council Meeting

The Oklahoma Pest Action Council (OPAC) is a group of federal, state, extension, and university entities that meet quarterly to discuss pest issues, management, and outreach in Oklahoma. The current goal of OPAC is to write and finalize an EAB Action Plan to management a possible EAB infestation in Oklahoma.

December 2013

EAB University webinar: Building an EAB Management Program in Milwaukee

The EAB University Series offered a webinar presented by City Forester, Randy Krouse who discussed how he built support for a proactive program to protect trees from EAB in the city of Milwaukee.

IFA Compliance Agreement

Currently, there are 41 compliance agreements with ODAFF. Nurseries, greenhouses, sod, hay and soil moving equipment must adhere to stipulations outlined in IFA compliance agreements issued by ODAFF and the USDA in order to move out of the quarantine zone.

<u>Proposed Expansion of IFA Quaratine</u>

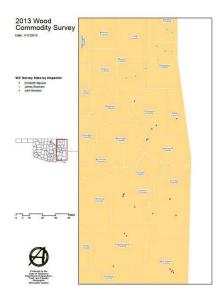
To determine the scope of IFA distribution, ODAFF has added additional counties to survey. Norman and Stillwater in the campus areas are surveyed yearly due to heavy traffic. Additional counties include, Canadian, Creek, Rogers, Muskogee, Cleveland, and Payne Counties.

January 2014

Final Reporting of 2013 Survey Programs

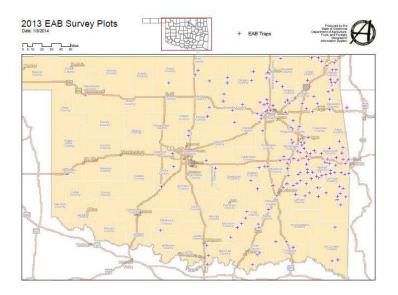
Wood Commodity Survey (#14-8444-1446-CA)

Three field personnel performed the Wood Commodity survey throughout the state starting May 2013 through October 2013. Oak traps were set at 40 sites in Ottawa, Delaware, Mayes, Adair, Cherokee, Sequoyah, Leflore, Latimer, Pushmataha, and McCurtain Counties. Pine traps were set at 20 sites in McCurtain, Latimer, Leflore, and Pushmataha counties. All traps were serviced every two weeks and removed in October. Samples were submitted to USDA APHIS for identification. None of the invasive insects we were surveying have been detected.



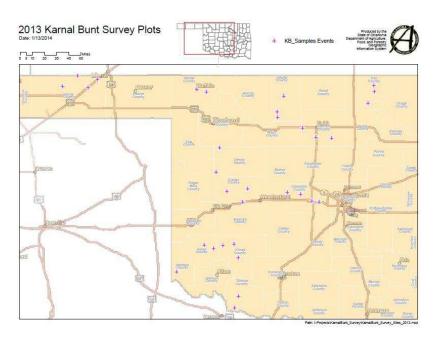
Emerald Ash Borer (EAB) (#14-8444-1141-CA)

388 predetermined sites generated by the APHIS EAB program were assigned to the Oklahoma Department of Agriculture, Food, and Forestry. Field personnel have evaluated those 388 sites in 45 counties using the Forest Health Technology Enterprise Team (FHTET) model and placed traps according to the USDA Forest Service risk assessment guidelines. Out of the predetermined sites, field personnel set a total of 190 traps. Predetermined locations that were unsuitable for sampling were omitted or considered void. Traps were installed in April and re-lured starting at the beginning of June through July and all traps were by September. All samples taken during service times and trap removal were submitted to USDA for identification. All samples were found to be negative.



Karnal Bunt (#13-8444-0111-CA)

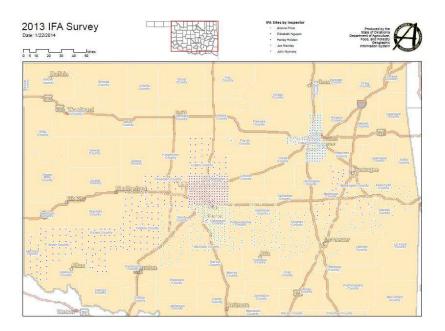
Field personnel collected forty-two (42) wheat samples that were taken from 34 grain elevators in 13 counties. No samples were taken from Grady County, where grain elevators refused to participate in the Karnal Bunt survey. Also, one grain elevator each in Blaine, Greer, and Harmon County were not willing to participate. Samples were submitted to Dr. Bob Hunger's lab at Oklahoma State University. All samples were found negative for Karnal Bunt presence.



Red Imported Fire Ant (RIFA) (#13-8444-0004-CA)

Highway surveys in counties outside the current quarantine were conducted in Harmon, Greer, Kiowa, Caddo, Canadian, Logan, Oklahoma, Grady, McClain, Cleveland, Pottawatomie, Seminole, Hughes, Pittsburg, Haskell, Sequoyah, McIntosh, Muskogee, and Tulsa counties and portions of Payne County. Samples have been collected and submitted to OSU for identification with 29 positive samples found outside the current quarantine in Oklahoma, Haskell, Payne, Tulsa, Pittsburg, and Cleveland counties.

Regulatory work included routine nursery inspections, setting IFA bait tubes on the property and checking plant materials from quarantine areas for the USDA IFA compliance stamp. Inspectors provided nursery owners and managers with an updated IFA quarantine map. We have taken 57 pesticide residue samples of the soil of plants shipped from quarantine areas into non-quarantine areas. ODAFF's diagnostic laboratory detected either chlopyrifos or bifenthrin in all of the samples taken; confirming each nursery's compliance with USDA quarantine law. ODAFF worked with USDA to issue separate state and federal compliance agreements. Oklahoma state compliance agreements follow the USDA IFA compliance requirements. There are a total of 41 active compliance agreements in the state.



March 2014

Oklahoma Invasive Species Conference

The Oklahoma Invasive Species Conference is a seminar put on by members of the Oklahoma Pest Action Council (OPAC). Elizabeth Nguyen as State Survey Coordinator was on the planning committee. Nine speakers were invited to speak on different invasive species that threaten the state and 75 participants were registered to attend. Elizabeth Nguyen also presented a poster on the 2013 survey results and work in progress for 2014.





April 2014

NACD EAB Webinar

The NACD Forest RPG and Urban and Community RPG hosted a webinar on emerald ash borer (EAB) and the challenges the forest pest creates for civic leaders and conservation professionals. There was a presentation from a U.S. Forest Service expert and conservation districts engaged in EAB planning and cleanup efforts.

NAPIS 3.0 Webinar Series

A webinar series aimed at training for the 3.0 version of NAPIS. The webinar introduced the new changes, including new data fields, and new functions of the site. It also included inputting data, inputting spreadsheets, and running reports.

May 2014

Park Managers Meeting

Elizabeth Nguyen was invited by Tom Creider with the Oklahoma State Parks to speak at the annual Parks Managers Meeting on May 14th at the Oklahoma City Zoo. Elizabeth Nguyen and spoke to park managers and naturalists about the results of their surveys, why these pests are surveyed, and outreach regarding these pests. There was also a breakout session with just the park naturalists to ask questions and discuss possible ways to improve surveys and outreach opportunities. Elizabeth gave a PowerPoint presentation and also handed out outreach materials (pamphlets, posters, and stickers) to be distributed by each state park. There were over 80 park managers and naturalists present at the meeting.

June 2014

CAPS Committee Meeting

The Annual Cooperative Agricultural Pest Survey Committee Meeting was held on June 9 at Oklahoma State University. Elizabeth Nguyen, the State Survey Coordinator, hosted the meeting and invited individuals from ODAFF CPS and Forestry Divisions, collaborators from OSU and OU, including extension specialists, diagnostic lab, and biosecurity specialists, the State Plant Health Director, the Pest Survey Specialist, and other individuals from USDA/APHIS.

The agenda included a discussion of CAPS and Farm Bill survey results from 2013, the status of 2014 CAPS and Farm Bill Surveys, and survey plans and pest concerns for 2015. An update of what's new in CAPS and other state's CAPS programs were also discussed. The committee made recommendations for possible 2015 surveys. While there is little room for additional CAPS surveys, the USDA recommends submitting surveys through Farm Bill. Pests of concern for 2015 include kudzu bug and brown marmorated stink bug, both being grouped into a survey for soybean commodities. Both the brown marmorated stink bug and kudzu bug have been found in the U.S. and would be an incredible nuisance to Oklahoma's legume crops. The Formosan termite is another pest of concern that was recommended by OSU. It has been found as close as Denton, TX and feeds off live plant material.

Possible outreach activities prospects were also discussed. Citizen science is a large portion of other state's outreach efforts and contributes to early detection and making invasive pests a widespread concern. However, a disadvantage of citizen science is misidentification. This being said, targeting individuals in the industry would be advantageous, such as master gardeners, retired professionals, university professors and students, etc.

Asian Defoliator Survey- Farm Bill

ODAFF received \$11,913 in Farm Bill funds to carry out the Asian Defoliator Survey. Field personnel set 130 red paper delta traps at McAlester Army Ammunition Plant in Pittsburg County (trapping done by the USDA), Tinker Air Force Base in Oklahoma County, Fort Sill in Comanche County, Vance Air Force Base in Garfield County, and Altus Air Force Base in Jackson County, the Hobby Lobby distribution center in Oklahoma City, the Dollar General distribution center in Ardmore, the Dollar Tree distribution center in Marietta, the Family Dollar distribution center in Duncan, the Big Lots distribution center in Durant, the Walmart distribution center in Pauls Valley, the industrial park in Stillwater, and Tulsa International Airport. Ten traps were set at each military base (50 traps total) and warehouse (80 traps total), with the exception of Fort Sill (20 traps) due to the size. Traps were set at the beginning of June, serviced every two weeks, and will be removed in August. During the monitoring, the traps were screened for moths and suspect samples submitted to APHIS for identification. Installation dates, sample submission dates, trap removal dates, GPS locations, and pest status information will be collected and submitted to IPHIS.