Small Grains Survey Workplan
January 1, 2019-December 31, 2019

Cooperator:	Kansas Department of Agriculture			
State:	Kansas			
Project:	Small Grains Survey			
Project funding source:	Pest Detection / CAPS Survey			
Project Coordinator:	Laurinda Ramonda			
Agreement Number				
Contact Information:	**Address:**	Plant Protection and Weed Control 6531 SE Forbes Avenue, Suite B Topeka, Kansas 66619		
	Phone:	785-564-6698	**Fax:**	785-564-6779
	Email Address:	laurinda.ramonda@ks.gov		

This Work Plan reflects a cooperative relationship between the Kansas Department of Agriculture (KDA) (the Cooperator) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ). It outlines the mission-related goals, objectives, and anticipated accomplishments as well as the approach for conducting a Small Grains survey and control program and the related roles and responsibilities of the parties [e.g., APHIS role(s) and Cooperator role(s)] as negotiated.

I) OBJECTIVES AND NEED FOR ASSISTANCE

This detection survey will gather data to determine the status of the Sunn pest (*Eurygaster integriceps),* Small brown planthopper (*Laodelphax striatellus*), Egyptian Cottonworm (*Spodoptera littoralis),* Old World Bollworm (*Helicoverpa armigera)* in wheat and sorghum in Kansas. In 2017, wheat and sorghum were Kansas' number 3 and 4 crops in production and economic value. This project will help build the state survey and NAPIS data bases for these exotic pests to support exports.

Rank	Commodity	Sales	Acres
3	Wheat	$1,33,4400,000	7,600,000
4	Sorghum	$624,397,000	2,600,000

Source: 2017 Kansas Farm Facts from the National Agriculture Statistics Service.

Survey data from this project will be collected as we monitor fields of wheat and sorghum for these pests. This survey will ensure that the action taken if the pests are intercepted is effective in preventing their introduction into the environment. Data will also be gathered for use in future control programs.

This project will provide the Kansas Department of Agriculture and USDA-APHIS-PPQ, with information regarding the status of the target insects. This information can be used to determine appropriate response actions if positive finds are confirmed by USDA.

This survey cannot be carried out without financial assistance from USDA.

II) RESULTS OR BENEFITS EXPECTED

The Cooperator seeks to conduct a program which is expected to result in:

- Reduction to the risk of economic hardship to the agriculture industry and ecological diversity.
- Additional geographic assessment from data gathered.
- Identification of the Sunn pest (*Eurygaster integriceps)*, Small brown planthopper (*Laodelphax striatellus*), Egyptian Cottonworm (*Spodoptera littoralis)*, Old World Bollworm (*Helicoverpa armigera)*, if present.
- Protection to the state of Kansas from the introduction of Sunn Pest (*Eurygaster integriceps)*, Small brown planthopper (*Laodelphax striatellus*), Egyptian Cottonworm (*Spodoptera littoralis)*, Old World Bollworm (*Helicoverpa armigera)*.
- Prevention of plant health restrictions.
- Identification of pathways of introduction to limit future infestations.
- Presence/absence data entered into the National Agricultural Pest Information System (NAPIS) data base.

III) APPROACH

What is the plan of action or approach to the work?

- This survey is planned for 2 years. For 2019, 30 northern Kansas counties with 138 sites will be surveyed. For 2020, 28 southern Kansas with 134 sites will be surveyed.

	Planted (acres)	**Number of fields -2019**	**Number of fields -2020**
Total	10,200,00	138	134
Total Sorghum	2,600,000	28	25
Total Wheat	7,600,000	110	109

Source: Planted acres-2017 Kansas Farm Facts from the National Agriculture Statistics Service.

Trapping –

- **Small brown planthopper (*Laodelphax striatellus*) –** Traps set from April – July in wheat and June – September sorghum.

  Approved Method(s):

Method	Product Name / Instructions	NAPIS Survey Method
Trap	43 - Sticky Card, Yellow	3001 - General Trapping Procedure

  Approved Lure(s):

Option	Product Name	Dispenser	Effectiveness	Compound(s)
1	No Lure	N/A	undetermined	

- **Egyptian Cottonworm (*Spodoptera littoralis)* –** Traps set from April – July in wheat. Traps set June – September in sorghum.

  Approved Method(s):

Method	Product Name / Instructions	NAPIS Survey Method
Trap	18 - Plastic Bucket Trap	3001 - General Trapping Procedure

  Approved Lure(s):

Product Name	Dispenser	Effectiveness	Compound(s)
Spodoptera littoralis Lure	laminate	84 days	Z9E11-14Ac, Z9E12-14Ac

  Trap Spacing: When trapping for more than one species of moth, separate traps for different moth species by at least 20 meters (65 feet).

  Method Notes:
  Mesh screens for plastic bucket traps are now available for purchase through IPHIS survey supply. Product name: Plastic Bucket Traps, Mesh Screen.

  This trap is also known as the unitrap. The trap has a green canopy, yellow funnel, and white bucket and is used with a dry kill strip.

  Lure Placement: Do not include lures for other target species in the trap when trapping for this target.

- **Old World Bollworm (*Helicoverpa armigera)* –** Traps set from April – July in wheat and June – September sorghum.

  Approved Method(s):

Method	Product Name / Instructions	NAPIS Survey Method
Trap	18 - Plastic Bucket Trap	3001 - General Trapping Procedure

Approved Lure(s):

Product Name	Dispenser	Effectiveness	Compound(s)
Helicoverpa armigera Lure	rubber septum	28 days	Z11-16Ald, Z9-16Ald butylated hydroxytoluene

Lure Placement: Do not include lures for other target species in the trap when trapping for this target.

Lure Notes:
The length of effectiveness of this lure may be reduced in hot and dry climates. In these environments, lures may need to be changed every two weeks instead of every four weeks.

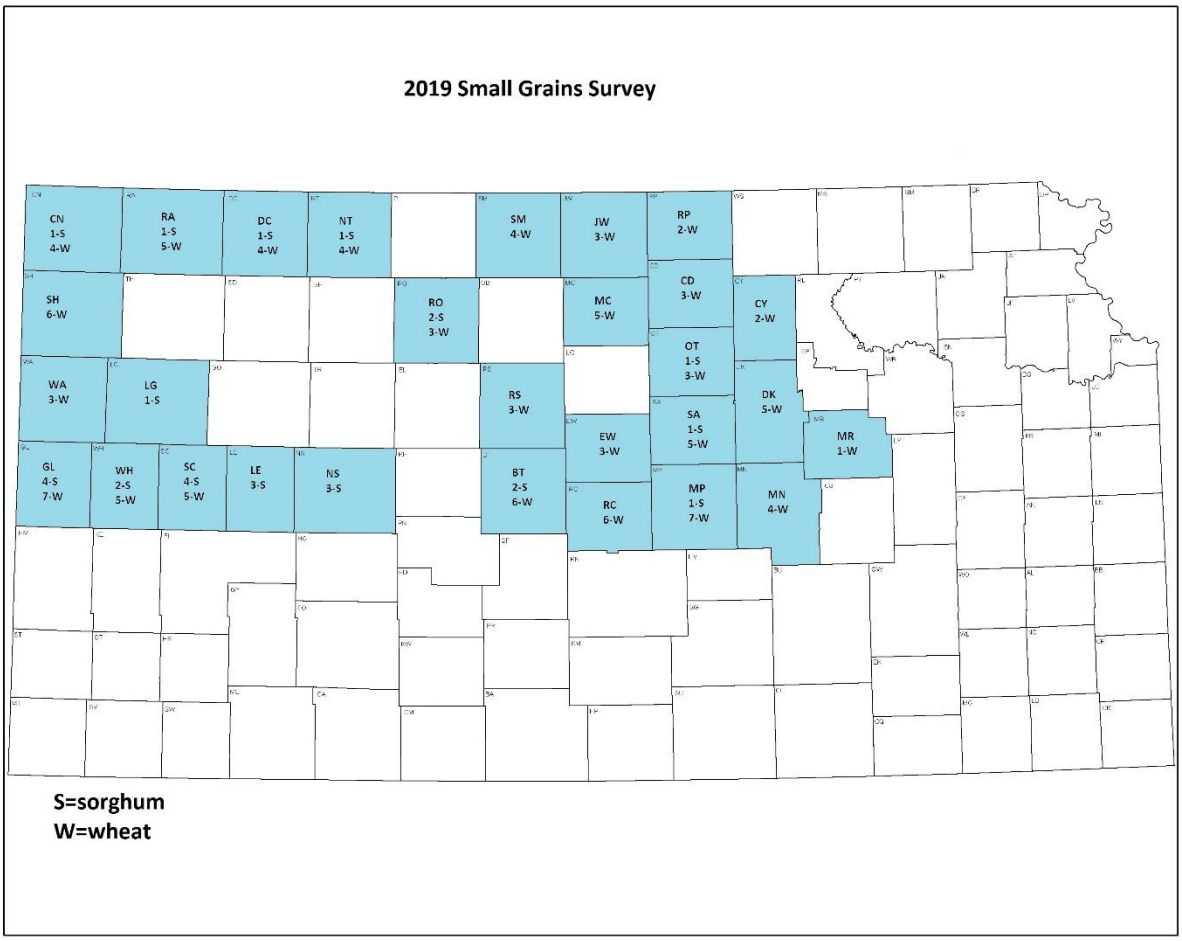
Visual –

- Sunn pest (*Eurygaster integriceps*) – Sweep net and visually look for from June – August.

Approved Method(s):

Method	Product Name / Instructions	NAPIS Survey Method
Visual	CPHST is finalizing the pest datasheet.	
Specimen Collection Sample	Sweep Net	3013 - General Specimen Collection Sample

ID/Diagnostic**:** Morphological



Survey Year 2019				Survey Year 2020		
County	**Commodity**	**# of fields surveyed**		**County**	**Commodity**	**# of fields surveyed**
BARTON	SORGHUM	2		CLARK	WHEAT	3
BARTON	WHEAT	6		COMANCHE	WHEAT	2
CHEYENNE	SORGHUM	1		CRAWFORD	WHEAT	1
CHEYENNE	WHEAT	4		EDWARDS	SORGHUM	1
CLAY	WHEAT	2		EDWARDS	WHEAT	4
CLOUD	WHEAT	3		FORD	WHEAT	7
DECATUR	SORGHUM	1		GRANT	SORGHUM	1
DECATUR	WHEAT	4		GRANT	WHEAT	3
DICKINSON	WHEAT	5		GRAY	SORGHUM	4
ELLSWORTH	WHEAT	3		GRAY	WHEAT	5
GREELEY	SORGHUM	4		HAMILTON	SORGHUM	3
GREELEY	WHEAT	7		HAMILTON	WHEAT	5
JEWELL	WHEAT	3		HARPER	WHEAT	9
LANE	SORGHUM	3		HARVEY	WHEAT	3

LOGAN	SORGHUM	1		HASKELL	SORGHUM	2
MARION	WHEAT	4		HODGEMAN	SORGHUM	2
MCPHERSON	SORGHUM	1		KEARNY	SORGHUM	3
MCPHERSON	WHEAT	7		KEARNY	WHEAT	4
MITCHELL	WHEAT	5		KINGMAN	WHEAT	7
MORRIS	WHEAT	1		LABETTE	WHEAT	1
NESS	SORGHUM	3		MEADE	SORGHUM	1
NORTON	SORGHUM	1		MONTGOMERY	WHEAT	1
NORTON	WHEAT	3		MORTON	SORGHUM	2
OTTAWA	SORGHUM	1		MORTON	WHEAT	3
OTTAWA	WHEAT	3		PAWNEE	SORGHUM	2
PHILLIPS	WHEAT	3		PAWNEE	WHEAT	5
RAWLINS	SORGHUM	1		PRATT	WHEAT	6
RAWLINS	WHEAT	5		RENO	WHEAT	8
REPUBLIC	WHEAT	2		SEDGWICK	WHEAT	6
RICE	WHEAT	6		SEWARD	SORGHUM	1
ROOKS	SORGHUM	2		SEWARD	WHEAT	2
ROOKS	WHEAT	3		STAFFORD	WHEAT	5
RUSSELL	WHEAT	3		STANTON	SORGHUM	1
SALINE	SORGHUM	1		STANTON	WHEAT	4
SALINE	WHEAT	5		STEVENS	SORGHUM	2
SCOTT	SORGHUM	4		STEVENS	WHEAT	1
SCOTT	WHEAT	5		SUMNER	WHEAT	13
SHERMAN	WHEAT	6		WILSON	WHEAT	1
SMITH	WHEAT	4				
WALLACE	WHEAT	3				
WICHITA	SORGHUM	2				
WICHITA	WHEAT	5				
Total		**138**		**Total**		**134**
Total Sorghum		**28**		**Total Sorghum**		**25**
Total Wheat		**110**		**Total Wheat**		**109**

* Number of fields surveyed based on acreage of crop planted. 1 field surveyed for every 25,000 acres per county of crop planted.

A. The Cooperator Will:

- Supply GPS equipment.
- Document GPS coordinates for site locations.
- Maintain equipment used in this survey upon completion of project.
- Hire one temporary/seasonal staff person through a hiring agency that has a contract with the state to perform survey.
- Help train seasonal staff and handle samples taken from field.

- Rent vehicle and supply a fuel card for travel to conduct survey and collect data.
- Conduct survey in northern Kansas from April 2019 to September 2019.

1. By function, what work is to be accomplished?

- Survey will be performed by one temporary/seasonal person.
- Temporary/seasonal employee will be trained and monitored by the State Survey Entomologist and State Survey Coordinator.
- Data will be entered into the NAPIS database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included in surveys.
- Screening of suspect insects will be done by the state entomologist.

2. What is the quantitative projection of accomplishments to be achieved?

a. By activity or function, what are the anticipated accomplishments by month, quarter, or other specified intervals?

- Trapping will occur during April through September.
- Fact sheets, webpage, resources, and pest reporting will be continually updated as new information becomes available.
- Data will be entered into the NAPIS database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Survey and identification of the Sunn pest (*Eurygaster integriceps),* Small brown planthopper (*Laodelphax striatellus*), Egyptian Cottonworm (*Spodoptera littoralis),* Old World Bollworm (*Helicoverpa armigera*), if present.
- Screening of suspect insects will be done by the state entomologist.
- Suspect target pests will be forwarded to a qualified identifier.

b. What criteria will be used to evaluate the project? What are the anticipated results and successes?

- Pest detection survey activities completed.
- All data collected from the pest detection survey entered into the NAPIS database.
- SPHD, SPRO, PSS, and SSC meetings on survey issues, if needed.
- Presence or absence of target pests.
- Better knowledge of the pathways that are at high risk for the introduction and establishment of target pests.

3. What numbers and types of personnel will be needed and what will they be doing?

- One temporary/seasonal person to conduct survey.

- KDA permanent staff to help train seasonal employee.
- Data from survey entered into the NAPIS database by the State Survey Coordinator or KDA staff.
- KDA staff will screen target specimens.
- Qualified identifier for specimen identification (APHIS Identifier).

4. **What equipment will be needed to perform the work?** Include major items of equipment with a value of $5,000 or more.

   a. **What equipment will be provided by the cooperator?**

      - Computers
      - Microscopes and similar lab equipment

   b. **What equipment will be requested from APHIS on loan?**

      - None planned

   c. **What equipment will be purchased in whole or in part with APHIS funds?**

      - None planned

   d. **How will the equipment be used?**

      - Data entry, documentation, and analysis
      - Screening and identification of pests

   e. **What is the proposed method of disposition of the equipment upon termination of the agreement/project?**

      - None planned

5. **Identify information technology equipment, e.g., computers, and their ancillary components.**

   - GPS units to document locations
   - KDA computers with internet to enter data

6. **What supplies will be needed to perform the work?**

   - Lure
   - Traps
   - Sponges for traps
   - Poles for traps
   - Sweep nets
   - Kill Strips

- Hand lenses
- Specimen jars
- Shipping boxes
- Hand tools
- Insect repellant
- Ziploc bags
- Alcohol
- Alcohol proof pens

a. What supplies will be provided by the Cooperator?

- GPS units
- Computers
- Poles
- Some bucket traps
- Some kill strips
- Some sponges

b. What supplies will be requested from APHIS (list supplies)?

- Bucket traps
- Lures
- Yellow sticky cards
- Kill strips

c. What supplies will be purchased in whole or in part with APHIS funds?

- 70% Alcohol
- Sponges for traps
- Ziploc bags
- Jars
- Twine for hanging traps
- Rental vehicle
- Fuel for rental vehicle

d. How will the supplies be used?

- Planning, implementation, data collection and data submission of survey.
- Pest detection survey work.
- Shipping of specimens to identifiers or labs.

e. What is the proposed method of disposition of the supplies with a cumulative value over $5,000 upon termination of the agreement/project?

- None planned

7. **What procurements will be made in support of the funded project and what is the method of procurement (e.g., lease, purchase)?**

   - Supplies for survey work.
   - The Fiscal Department at the Kansas Department of Agriculture will provide most contracts.
   - Seasonal employee will be employed by a temporary employment service that has a contract with the state.
   - Most procurements will be made by purchase order.
   - Some procurements will be made reimbursable personal expense.

8. **What are the travel needs for the project?**

   a. **Is there any local travel to daily work sites? Indicate rates and total costs in the Financial Plan.**

      - Travel will be required to survey sites by use of a rental vehicle (shortage of state vehicles).
      - Most procurements will be made by purchase order.
      - Some procurements will be made reimbursable personal expense.
      - The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
      - Costs are included in the financial plan.

   b. **What extended or overnight travel will be performed (number of trips, their purpose, and approximate dates**)? **Indicate rates and total cost in the Financial Plan.**

      - Overnight stays ten times a month by seasonal staff.
      - This travel will occur because of the distance of survey work.
      - The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
      - Costs are included in the financial plan.

9. **Reports**:

   All Reports will be completed in ezFedGrants. Reports include:

   a. Narrative accomplishment reports in the frequency and time frame specified on the Agreement Award Face Sheet.

   b. Federal Financial Reports, SF-425, in the frequency and time frame specified on the Agreement Award Face Sheet.

10. Are there any <u>other</u> contributing parties who will be working on the project?

a. If so, list other participating institutions/agencies who will work on the project.

- KDA
- USDA-APHIS-PPQ

b. Describe the nature of their effort.

- KDA – trapping, training, screening, specimen collection, lure and trap maintenance (state entomologist, CAPS coordinator and temporary/seasonal employees)
- USDA-APHIS- PPQ – funding, support and pest identification

B. APHIS Will:

1. Outline the Agency's (USDA APHIS PPQ) substantial involvement.

a. Include any significant Agency collaboration and participation

- Provide traps and lure.
- Provide funds to the Cooperator to cover costs outlined in the Financial Plan.
- Make arrangements for Taxonomic support in identification and sorting.

b. Project oversight and performance management

- Review of data results submitted to USDA approved database.
- Review data and submit accomplishment reports to ADODR.
- Provide training, when necessary

c. Provide the equipment requested by the cooperator in 4.b. & c.

- None planned

d. Provide the supplies requested by the cooperator in 6.b. & c.

- Some bucket traps
- Lures
- Yellow sticky cards
- Kill strips
- 70% Alcohol
- Sponges for traps
- Ziploc bags
- Collection jars
- Twine for hanging traps

- Rental vehicle
- Fuel for rental vehicle

IV) GEOGRAPHIC LOCATION OF PROJECT

A. Is the project statewide or in specific counties?

Barton, Cheyenne, Clay, Cloud, Decatur, Dickinson, Ellsworth, Greeley, Jewell, Lane, Logan, Marion, McPherson, Mitchell, Morris, Ness, Norton, Ottawa, Phillips, Rawlins, Republic, Rice, Rooks, Russell, Saline, Scott, Sherman, Smith, Wallace, Wichita

B. What type of terrain will be involved in the project?

- Cropland

C. Are there any unusual geographic features which may have an impact on the project*?*

- There could be many unusual features which may have an impact on the project or activity such as rivers, lakes, forests and wildlife sanctuaries.
- Areas might have disruption through human contact and dust, dirt and debris.
- Rattlesnakes and wildlife could have an impact on where to survey.

V) DATA COLLECTION AND MAINTENANCE

Each State is responsible for entering complete, accurate, and timely pest survey data that was obtained using the Approved Methods for Pest Surveillance. The National Agricultural Pest Information System (NAPIS) is the final repository for all Pest Detection and Cooperative Agricultural Pest Survey (CAPS) survey results. As such, all data generated from all Pest Detection/CAPS surveys will be entered into NAPIS at https://napis.ceris.purdue.edu

- First record for the State and/or County will be entered within **48 hours** of confirmation of identification by a qualified identifier.
- All other required records, both positive and negative survey data, must be entered **within two weeks** of confirmation.
- All records are to be entered into the NAPIS database no later than the date that the final Accomplishment Report is due, otherwise a justification must be provided in the Accomplishment Report. If results have not been returned from an identifier or diagnostic lab by the time the Accomplishment Report is due, please also notify the National Operations Manager for Pest Detection.

All survey data performed by federal personnel in conjunction with this agreement should be provided to the State Survey Coordinator for entry into NAPIS.

VI) TAXONOMIC SUPPORT

Choose A or B.

- If you do not need additional assistance taxonomic assistance, list the person(s) or institution who will perform the identification/diagnostics, and do not check B.

- If you need assistance, check B.

  A. Person(s) or Institution that will screen targets (Name & Contact Information) and level of screening/identification.

  OR

  B. ☒ Request for taxonomic support.

  - Regional APHIS-PPQ identifier(s) for screened samples.

For Egyptian cottonworm (*Spodoptera littoralis*) and Old World Bollworm (*Helicoverpa armigera*) identification:
Eric La Gasa
WA State Dept. of Agriculture
Plant Protection Division
1111 Washington St. SE
Olympia, WA 98504-2283
360-902-2063
ELaGasa@agr.wa.gov

VII) SURVEY SUMMARY FORM

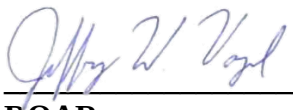
A Survey Summary Form must be completed to summarize all CAPS surveys **funded by the Pest Detection line item.**

Bucket trap:
Egyptian Cottonworm (*Spodoptera littoralis*)
Old World Bollworm (*Helicoverpa armigera)*

Yellow Sticky card:
Small brown planthopper (*Laodelphax striatellus*)

Visual:
Sunn pest (*Eurygaster integriceps*)

VIII) SIGNATURES



8/21/2018

ROAR **Date** **ADODR** **Date**

Detailed Financial Plan

PROJECT: Small Grains Survey
COOPERATOR NAME: Kansas Department of Agricultur**e**
AGREEMENT NUMBER:
TIME PERIOD: January 1, 2019-December 31, 2019

Financial Plan must match the SF-424A, Section B, Budget Categories

ITEM			APHIS FUNDS	COOPERATOR FUNDS (Show even if zero)	TOTAL
PERSONNEL:	**Hours**	**Salary**			
KDA staff - Paid by Cooperator funds (based on average hourly wage for permanent employees)	15	$25	$0	$375	$375
Subtotal			**$0**	**$375**	**$375**
FRINGE BENEFITS:	**Percent** (enter as decimal not %)				
KDA staff - Paid by APHIS funds - 33%	0.33	$375	$0	$124	$124
Subtotal			**$0**	**$124**	**$124**
TRAVEL:	**Cost**	**Length of time**			
SUV rental for temporary staff for 6 months @ $750/month (shortage in state vehicles) *	$750	6	$4,500	$0	$4,500
Lodging 48 nights @ $93/night and room tax	103	48	$4,944	$0	$4,944
Meals for overnight travel @ $51 x 30 days	51	60	$3,060	$0	$3,060
Subtotal			**$12,504**	**$0**	**$12,504**
EQUIPMENT:	**Cost**				
			$0	$0	$0
Subtotal			**$0**	**$0**	**$0**
SUPPLIES:	**Cost**	**Length of time**			
Ziploc bags, sponges, alcohol, pens,bags, jars, twine	$366		$366	$0	$366
Fuel - 5,300 miles/month x $3.25 per gallon/20 mpg for rental vehicles*	$861	6	$5,166	$0	$5,166

lure by USDA - 662 for OWB, 331 for EC	$0		$0	$0	$0
Yellow sticky cards - 662	$0		$0	$0	$0
Subtotal			**$5,532**	**$0**	**$5,532**
CONTRACTUAL:	**Cost**	**Length of time**			
Key Staffing (1 temporary staff) $20.00 x 960 hours (includes data entry time and trap prep)	$20	960	$19,200	$0	$19,200
Subtotal			**$19,200**	**$0**	**$19,200**
OTHER:	**Cost**				
Shipping samples to identifier	$100		$100	$0	$100
Subtotal			**$100**	**$0**	**$100**
TOTAL DIRECT COSTS			**$37,336**	**$499**	**$37,835**
INDIRECT COSTS **	**Percent** (enter as decimal not %)				
(18.2% on Total Direct Cost of salary and fringe benefits)*	0.182		**$0**	**$91**	**$91**
TOTAL			**$37,336**	**$590**	**$37,926**
COST SHARE INFORMATION (Percent)			**98%**	**2%**	

* There is a shortage of state vehicles. We give the option of renting a vehicle or using personally owned vehicles.
- If renting we pay for the fuel and if a personal vehicle is used we pay mileage.

** Kansas' Negotiated Cost Rate (Salary + Fringe Benefits x %=Indirect Cost)