United States Department of Agriculture

Farm Bill Section 10007
FY 18 Spending Plan

Plant Pest and Disease Management and Disaster Prevention Program

March 22, 2018

Contents

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Funding by Goal Area		
Goal	**Goal Area Description**	**Funding Level**
1A	Enhance Plant Pest/Disease Analysis	$2,200,000
1S	Enhance Plant Pest/Disease Survey	$14,439,575
2	Target Domestic Inspection Activities at Vulnerable Points in the Safeguarding Continuum	$5,750,000
3	Pest Identification and Detection Technology Enhancement	$6,249,997
4	Safeguard Nursery Production	$2,120,467
5	Outreach and Education	$3,750,000
6	Enhance Mitigation Capabilities	$14,218,509
TOTAL*		$48,728,548

*** Minus approximately $26 million in Farm Bill funds for Sequester, the National Clean Plant Network, and Emergency Response.**

Alabama				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0089.00	Phytophthora ramorum Survey	State Government	$20,000
1S	1S.0622.00	Asian Defoliator	State Government	$27,000
1S	1S.0631.00	Solanaceous Commodity Survey	State Government	$52,500
4	4.0608.00	Best Management Practices for Control of Bacterial Gall on Loropetalum (Pseudomonas savastanoi), Year 3	Auburn University	$54,795
5	5.0614.00	Alabama Invader Raiders	State Government	$19,000
TOTAL				**$173,295**

Alaska				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0668.00	Pathway(s) of Phytoplasma Introduction to Alaska	Academia	$130,576
1S	1S.0068.00	Asian Defoliating Moth Survey	State Government	$30,000
5	5.0315.00	First Detector training and engagement in Alaska	Academia	$35,239
TOTAL				**$195,815**

Arizona				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0217.00	Nursery and Retail Plants Pest Survey	State Government	$100,000
1S	1S.0219.00	Nut Pest Survey	State Government	$100,000
1S	1S.0220.00	Palm Commodity Survey	State Government	$95,000
3	3.0294.00	Identification of Lepidoptera pests threatening U.S. avocado production	Academia	$49,562
5	5.0563.00	Interactive Augmented Reality 3D Card for Asian Longhorned Beetle	Academia	$2,664
6	6.0208.00	Arizona Emergency Plant Health Response Plan	State Government	$23,669
6	6.0465.01	Survey of Rangeland with Remote Sensing Tools to Delimit Grasshopper Populations in the Malheur National Wildlife Refuge	APHIS	$4,000
TOTAL				**$374,895**

Arkansas				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0039.00	Solanaceous Commodity Survey	State Government	$15,000
1S	1S.0040.00	Walnut Twig Beetle/Thousand Canker Disease	State Government	$5,000
5	5.0041.00	Forest Pest Outreach Project	State Government	$26,240
TOTAL				**$46,240**

California				
Goal	Project #	Title	Cooperator Type	Funding Level
1S	1S.0478.00	Exotic Fruit Fly Survey	State Government	$4,300,000
1S	1S.0489.00	Asian Defoliator Moth Survey	State Government	$425,000
1S	1S.0491.00	Citrus Commodity Survey	State Government	$450,000
1S	1S.0493.00	Stone Fruit Commodity Survey	State Government	$250,000
1S	1S.0494.00	Palm Commodity Survey	State Government	$120,000
1S	1S.0495.00	Khapra Beetle Survey	State Government	$100,000
2	2.0066.00	California Agriculture Detector Dog Team Program	State Government	$3,510,536
3	3.0141.00	Enhancing taxonomic and molecular diagnostics capacity for fruit flies (Diptera: Tephritidae)	State Government	$212,978
3	3.0176.00	Targeted identification of pheromones and related attractants for invasive cerambycid beetles from Asia	Academia	$181,079
3	3.0271.00	Enhancing diagnostics of plant pathogenic bacteria of the genus Rathayibacter	State Government	$76,100
3	3.0273.00	Enhancing diagnostics of cyst forming nematodes of the genus Globodera	State Government	$7,900
3	3.0285.01	Tools for the identification and detection of Graminicolous downy mildews, including the Select Agent Peronosclerospora	Academia	$188,777
3	3.0285.02	Tools for the identification and detection of Graminicolous downy mildews, including the Select Agent Peronosclerospora	Academia	$34,000
3	3.0329.00	Enhancing diagnostics of cyst forming nematodes of the genus Heterodera	State Government	$49,300
3	3.0400.02	Development of molecular tools for the detection and discrimination of gall forming nematodes in the family Anguinidae a	Academia	$9,171

3	3.0447.00	Characterizing unresolved Phytophthora species complexes to support surveys and effective IPM	Non-APHIS-Federal	$87,230
3	3.0512.00	Detection of asymptomatic root infections by Phytophthora species in nursery ornamentals	Academia	$225,090
4	4.0037.00	National Ornamentals Research Site at Dominican University of CA (NORS-DUC)	Academia	$513,087
4	4.0639.00	A Best Management Practices Program for California Nurseries and Liaison to the National Ornamental Research Site at Dom	State Government	$229,338
6	6.0135.01	Biological Control of Bagrada Bug, Bagrada hilaris (Pentatomidae)	State Government	$25,821
6	6.0135.02	Biological Control of Bagrada Bug, Bagrada hilaris (Pentatomidae)	State Government	$25,500
6	6.0135.03	Biological Control of Bagrada Bug, Bagrada hilaris (Pentatomidae)	State Government	$27,000
6	6.0135.04	Biological Control of Bagrada Bug, Bagrada hilaris (Pentatomidae)	State Government	$79,000
6	6.0496.00	Emergency Plant Health Response Teams	State Government	$1,700,000
6	6.0531.00	Selecting and Improving Varroa-Resistant Honey Bee Stocks for Commercial Beekeeping	Non-Profit	$81,636
6	6.0541.00	Natural Enemies and Control of Polyphagous Shot Hole Borer (Euwallacea sp.)	Academia	$101,509
TOTAL				**$13,010,051**

Colorado				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0477.00	Grape Commodity Survey	State Government	$17,000
1S	1S.0611.00	Stone Fruit Commodity Survey	State Government	$34,000
3	3.0320.02	Molecular-based initiatives to support the Old World Bollworm Strategic Management Plan	APHIS	$140,045
3	3.0320.03	Molecular-based initiatives to support the Old World Bollworm Strategic Management Plan	APHIS	$10,000
TOTAL				**$201,045**

Connecticut				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0241.00	Orchard Commodity Survey	State Government	$45,000
1S	1S.0256.00	Solanaceous Commodity Survey	State Government	$45,000
5	5.0279.00	Forest Pest Outreach	State Government	$35,000
TOTAL				**$125,000**

Delaware				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
5	5.0344.00	Forest Pest Outreach	State Government	$22,751
6	6.0324.01	Monitoring for the presence and impact of Trissolcus japonicus – Classical Biological Control of BMSB	Non-APHIS-Federal	$20,000
6	6.0324.02	Monitoring for the presence and impact of Trissolcus japonicus – Classical Biological Control of BMSB	Non-APHIS-Federal	$15,000
6	6.0324.03	Monitoring for the presence and impact of Trissolcus japonicus – Classical Biological Control of BMSB	Non-APHIS-Federal	$8,000
6	6.0453.01	Development of Biological Control Approaches to Supplementing the Eradication/Management Strategy against the Asian Long	Non-APHIS-Federal	$84,633
6	6.0453.02	Development of Biological Control Approaches to Supplementing the Eradication/Management Strategy against the Asian Long	Non-APHIS-Federal	$21,000
TOTAL				**$171,384**

Florida				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0018.01	Narrowing down the priority offshore wood boring pests in Asia	Academia	$25,510
1A	1A.0018.02	Narrowing down the priority offshore wood boring pests in Asia	Academia	$91,115
1A	1A.0115.01	Sweetgum inscriber: assessing a $150.000.000 threat to American urban and production forests	Academia	$11,500
1A	1A.0115.02	Sweetgum inscriber: assessing a $150.000.000 threat to American urban and production forests	Academia	$87,290
1A	1A.0264.00	Risk-based residential and commercial survey design for management of Plum pox virus in California.	Non-APHIS-Federal	$194,860
1S	1S.0191.00	Fruit Fly Detection	State Government	$1,000,000
1S	1S.0466.00	Survey for Old World Bollworm (Helicoverpa armigera) and Pests of Tomato.	State Government	$160,000
2	2.0613.00	Florida Detector Dog Inspection and Enhanced Domestic Pest Detection	State Government	$1,324,464
3	3.0236.01	Pheromones in the Euwallacea fornicatus species complex	Academia	$10,588
3	3.0328.00	Delivery of Taxonomic Training through Distance Education-Fruit Flies	Academia	$109,763
3	3.0433.01	Rapid and accurate diagnostic identification of phytoplasmas	Academia	$146,438
3	3.0542.03	Development of More Rapid and Reliable Diagnostic Tools for All Life Stages of Anastrepha and Other Pest Fruit Flies	State Government	$98,000
3	3.0542.04	Development of More Rapid and Reliable Diagnostic Tools for All Life Stages of Anastrepha and Other Pest Fruit Flies	Academia	$164,704
5	5.0237.00	Plant Biosecurity and Invasive Species Youth Outreach	Academia	$60,700
5	5.0498.00	Florida First Detector	Academia	$54,877
6	6.0202.00	CONEHEAD TERMITE MITIGATION PROGRAM	State Government	$173,766

6	6.0212.00	Giant African Land Snail Eradication Program	State Government	$1,643,151
6	6.0321.00	Enhancement of Emergency Fruit Fly Eradication Programs	State Government	$277,817
6	6.0490.01	Mitigation response to the potential detection of Citrus Leprosis CiLV in Florida.	Academia	$5,000
6	6.0490.02	Mitigation response to the potential detection of Citrus Leprosis CiLV in Florida.	Academia	$81,249
6	6.0527.00	Bagrada Bug, Bagrada hilaris: Establishment Potential in Florida	Academia	$76,235
6	6.0568.01	True host assessment of chilli thrips: Development of a knowledge based management program for an invasive species	Academia	$23,932
6	6.0568.02	True host assessment of chilli thrips: Development of a knowledge based management program for an invasive species	Academia	$30,868
6	6.0568.03	True host assessment of chilli thrips: Development of a knowledge based management program for an invasive species	Academia	$23,931
6	6.0570.00	Neonic Stewardship Program for the Management of the Invasive Bemisia Whitefly Complex	Academia	$88,168
TOTAL				**$5,963,926**

Georgia				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0189.00	Blueberry Commodity Survey	State Government	$27,000
1S	1S.0195.00	Field Crop Pest Survey	State Government	$38,000
1S	1S.0197.00	Tree Fruit Pest Survey	State Government	$30,000
1S	1S.0198.01	Oak Commodity Survey	State Government	$7,880
1S	1S.0198.02	Oak Commodity Survey	State Government	$22,120
5	5.0376.00	First Detector Network in Georgia	Academia	$34,413
TOTAL				**$159,413**

Guam				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0046.00	Survey of tomato for Ralstonia solanacearum race 3 biovar 2 and Tuta absoluta in Guam	Academia	$38,000
6	6.0007.00	Biological Control of Coconut Rhinoceros Beetle Biotype G	Academia	$200,000
6	6.0628.00	Guam Coconut Rhinoceros Beetle Management Program	Academia	$200,000
TOTAL				**$438,000**

Hawaii				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0383.00	USDA Compendium of Fruit Fly Host Information (CoFFHI)	Academia	$232,534
1S	1S.0188.00	Mollusk Survey	Non-Profit	$70,000
1S	1S.0507.00	Survey of Solanaceous vegetable crops for Ralstonia solanacearum r3 b2, Candidatus Phytoplasma australiense in Hawaii	Academia	$53,000
2	2.0016.00	Hawaii Pre-Departure Clearance X-ray Support	APHIS	$230,000
3	3.0229.01	Attraction and Detection of the Fruit Piercing Moth	Non-APHIS-Federal	$146,562
3	3.0406.01	Resolving species complexes of Bactrocera fruit flies	Academia	$205,765
3	3.0406.04	Resolving species complexes of Bactrocera fruit flies	Non-APHIS-Federal	$230,500
3	3.0440.02	Development of molecular methods to detect Dickeya spp. and specifically, D. solani.	Academia	$60,289
5	5.0121.00	Building diagnostic capacity for identification of invasive ants in Hawaii	Academia	$49,887
5	5.0337.00	Coconut Rhinoceros Beetle (CRB) Outreach & Education Expansion – Shifting to New Areas of High Concern on Oahu, Hawaii	Non-Profit	$88,055
6	6.0138.00	Biological and Chemical Control of Coconut Rhinoceros Beetle in Hawaii	Academia	$46,312
6	6.0331.00	Expanding non-transgenic genetic sexing systems to new pest tephritid species	Non-APHIS-Federal	$176,550
6	6.0677.01	Canine Based Detection of Coconut Rhinoceros Beetle Habitat	State Government	$382,513
6	6.0518.01	Response to coconut rhinoceros beetle in Hawaii	Academia	$1,300,000
6R	6R.0539.02	Systems approach for the management of coffee berry borer in Hawaii and Puerto Rico with emphasis on biological control	Academia	$120,000

6R	6R.0539.03	Systems approach for the management of coffee berry borer in Hawaii and Puerto Rico with emphasis on biological control	Non-APHIS Federal	$120,000
6R	6R.0539.05	Systems approach for the management of coffee berry borer in Hawaii and Puerto Rico with emphasis on biological control	State Government	$60,000
6	6.0634.01	Management approaches for Coconut rhinoceros beetle	Academia	$75,000
TOTAL				**$3,646,967**

Idaho				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
3	3.0400.01	Development of molecular tools for the detection and discrimination of gall forming nematodes in the family Anguinidae a	Academia	$19,572
3	3.0406.02	Resolving species complexes of Bactrocera fruit flies	Academia	$34,000
3	3.0521.01	Development and validation of antibody and molecular detection tools for Rathayibacter agricultural threats.	Academia	$51,353
3	3.0521.02	Development and validation of antibody and molecular detection tools for Rathayibacter agricultural threats.	Academia	$17,500
3	3.0521.03	Development and validation of antibody and molecular detection tools for Rathayibacter agricultural threats.	Academia	$95,087
6	6.0081.01	PCN Immunity	Academia	$50,000
6	6.0081.02	PCN Immunity	Academia	$60,000
6	6.0081.03	PCN Immunity	Academia	$30,000
6	6.0081.04	PCN Immunity	Academia	$50,000
6	6.0081.05	PCN Immunity	Academia	$160,000
6	6.0081.06	PCN Immunity	Academia	$50,000
6	6.0102.01	PCN Eradication	Academia	$85,000
6	6.0102.02	PCN Eradication	Academia	$50,000
6	6.0102.03	PCN Eradication	Academia	$148,000
6	6.0102.04	PCN Eradication	Academia	$100,000
6	6.0102.05	PCN Eradication	Academia	$2,000

6	6.0102.06	PCN Eradication	Academia	$15,000
6	6.0487.00	Quantifying the decline in inorganic bromide concentrations in plant tissue following fumigation with methyl bromide	Academia	$144,675
6	6.0610.00	Magnitude of Inorganic Bromide Residue Study in Cattle	APHIS	$60,000
TOTAL				**$1,222 ,187**

Illinois				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0360.00	Grape Survey	State Government	$32,000
1S	1S.0554.00	Plum Pox Survey	State Government	$29,000
5	5.0655.00	Forest Pest Outreach	Non-Profit	$84,359
TOTAL				**$145,359**

Indiana				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0369.01	NPDN Analysis - Process Improvement in Making Diagnostic Lab Data Available to a Wider Audience	Academia	$34,004
1A	1A.0369.02	NPDN Analysis - Process Improvement in Making Diagnostic Lab Data Available to a Wider Audience	Academia	$9,196
1S	1S.0385.00	Specialty Crops Commoditys Survey	State Government	$60,000
5	5.0116.00	Forest Pest Outreach and Survey Project FY2018	State Government	$75,702
TOTAL				**$178,902**

Iowa				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0029.00	Walnut Twig Beetle, Pityophthorus juglandis, Survey	State Government	$10,000
TOTAL				**$10,000**

Kansas				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0019.00	Walnut Twig Beetle	State Government	$9,000
5	5.0684.00	Forest Pest Outreach	State Government	$14,151
TOTAL				**$23,151**

Kentucky				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0059.00	Orchard Commodity Survey	Academia	$17,000
1S	1S.0060.00	Grape Commodity Survey in Kentucky	Academia	$21,000
1S	1S.0061.00	Phytophthora ramorum Nursery Survey in Kentucky	Academia	$25,000
5	5.0056.00	Invasive Pest Outreach in Kentucky	Academia	$57,931
5	5.0058.00	Invasive Pest Outreach: Focus Firewood	Academia	$9,138
5	5.0445.00	Healthy Trees - Healthy People	Academia	$37,540
6	6.0162.00	Development of new RNAi-based control technologies for use in plant health emergencies	Academia	$114,770
6	6.0472.00	Developing RNAi for Suppression of Exotic Wood-Boring Bupresitds	Academia	$96,312
6	6.0633.00	Regional Differences in Plant and Pest Phenology May Affect Biological Control Efforts Targeting Emerald Ash Borer	Academia	$57,692
TOTAL				**$436,383**

Louisiana				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0025.00	Sudden Oak Death Survey	State Government	$20,000
1S	1S.0027.00	Citrus Commodity Survey	State Government	$12,000
1S	1S.0028.00	Solanaceous Commodity Survey	State Government	$17,000
6	6.0342.00	Biology and Management of Divine Nightshade in Louisiana Sugarcane Production	Non-APHIS-Federal	$48,200
TOTAL				**$97,200**

Maine				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0291.00	Tree Fruit Pest Survey	Academia	$10,546
1S	1S.0446.00	Small Fruit Pest Survey	State Government	$13,000
1S	1S.0452.00	Solanaceous Commodity Survey	State Government	$51,000
1S	1S.0471.00	Vegetable Crops Pest Survey	State Government	$10,840
5	5.0585.00	Invasive Forest Pest Outreach and Education	State Government	$70,125
TOTAL				**$155,511**

Maryland				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0348.00	Asian Defoliator Survey of Maryland	State Government	$20,000
1S	1S.0354.00	Thousand Canker Disease/ Walnut Twig Beetle Survey of Maryland	State Government	$14,000
1S	1S.0431.00	Nursery and Retail Plants Pest Survey	State Government	$26,000
1S	1S.0443.00	Small Fruit Pest Survey	State Government	$16,000
1S	1S.0448.00	Solanaceous Commodity Survey	State Government	$25,000
3	3.0402.00	Fungal specimen imaging as a diagnostic reference tool for rusts and smuts	Non-APHIS-Federal	$114,035
3	3.0454.01	Systematics and identification of Urocystis species causing flag smut and barcoding of taxa on non-grass hosts	Non-APHIS-Federal	$123,389
3	3.0454.02	Systematics and identification of Urocystis species causing flag smut and barcoding of taxa on non-grass hosts	Non-APHIS-Federal	$44,135
3	3.0557.00	Development and validation of E-probe Diagnostic Nucleic acid Assay technology for viruses related to Citrus Leprosis co	Non-APHIS-Federal	$127,714
6	6.0503.01	Development of a biological control-based integrated pest management strategy to protect ash trees against post-invasion	Academia	$31,000
6	6.0503.02	Development of a biological control-based integrated pest management strategy to protect ash trees against post-invasion	Academia	$89,729
TOTAL				**$631,002**

Massachusetts				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0278.00	Orchard Commodity Survey	State Government	$15,500
5	5.0175.00	FOREST AND AGRICULTURAL PEST OUTREACH	State Government	$67,000
5	5.0545.00	Asian Longhorned Beetle Awareness Campaign	State Government	$175,000
6	6.0216.00	The population genetics of hybridization between non-native winter moth and native Bruce spanworm	Academia	$97,047
6	6.0230.00	Facilitating Spread of the Microsporidian Pathogen, Ovavesicula popilliae, for Long-Term Suppression of Japanese Beetle.	Academia	$147,519
6	6.0249.01	Evaluating Two Systemic Insecticide Products to Control Invasive Pests in Chestnut and Walnut Trees.	Academia	$38,440
6	6.0249.02	Evaluating Two Systemic Insecticide Products to Control Invasive Pests in Chestnut and Walnut Trees.	Academia	$38,735
6	6.0459.01	Biological Control of Asian Longhorned Beetle using Parasitoids Recovered in China.	APHIS	$23,500
6	6.0459.02	Biological Control of Asian Longhorned Beetle using Parasitoids Recovered in China.	APHIS	$48,000
TOTAL				**$650,741**

Michigan				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0103.00	Potato Cyst Nematode Survey	State Government	$26,000
1S	1S.0164.00	Phytophthora ramorum Survey	State Government	$20,000
1S	1S.0166.00	Oak and Pine Commodity Survey	State Government	$50,000
1S	1S.0171.00	Exotic Tortricidae Survey	State Government	$61,000
4	4.0665.00	Best Management Practices for N. Root Knot Nematode (Meloidogyne hapla) in Ornamental Hemerocallis Bare Root Production	Industry	$91,373
TOTAL				**$248,373**

Minnesota				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0355.00	What is the host range of establishing Trichoferis campestris?	Academia	$75,000
1S	1S.0313.00	Cyst Nematode Survey	State Government	$51,000
1S	1S.0317.00	Bundled Survey for Exotic Pests of Fruits and Vegetables	State Government	$110,000
1S	1S.0319.00	Forest Pathway Survey	State Government	$80,000
5	5.0106.00	Enhancing Exotic pest outreach via advanced technology	APHIS	$1,475
5	5.0322.00	Invasive Pest Outreach and First Detec	State Government	$102,358
6	6.0593.00	Regulatory Investigation Training Utilizing the Chinese Furniture Reponse as a Case Study	State Government	$202,417
TOTAL				**$622,250**

Mississippi				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0158.00	Exotic Wood Borer/Bark Beetle Survey	State Government	$10,000
1S	1S.0222.00	Palm Commodity Survey	Academia	$36,000
1S	1S.0286.00	Oak Commodity Survey	State Government	$24,000
1S	1S.0339.00	Pine Commodity Survey	State Government	$21,000
1S	1S.0502.00	Asian Defoliator Survey	Academia	$41,000
1S	1S.0506.00	Solanaceous Crop Pest Survey - Arthropods and Bacteria	Academia	$45,000
3	3.0320.04	Molecular-based initiatives to support the Old World Bollworm Strategic Management Plan	Non-APHIS Federal	$100,088
3	3.0584.00	Taxonomic Assistance to Eastern Regional States for Processing Insect Pest Survey Samples	Academia	$174,961
5	5.0651.00	Don’t Get the Bug Blues: education and outreach to prevent the spread of high-consequence pest species.	Academia	$84,820
TOTAL				**$536,869**

Missouri				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0218.00	Missouri Plum Pox Virus Survey 2018	State Government	$24,000
1S	1S.0444.00	Thousand Cankers Disease Survey	State Government	$20,000
5	5.0244.00	Invasive Pest Outreach	APHIS	$2,150
TOTAL				**$46,150**

Montana				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0096.00	Mollusk Survey	State Government	$18,000
1S	1S.0132.00	Stone Fruit Commodity Survey	State Government	$18,000
1S	1S.0134.00	Exotic Wood Borer/Bark Beetle Survey	State Government	$24,800
3	3.0641.00	Regional Pulse Crop Diagnostic Laboratory	Academia	$150,000
5	5.0287.00	Don't Move Firewood Campaign	Non-Profit	$172,000
6	6.0538.00	Enhance Mitigation of the Eastern Heath Snail, Xerolenta obvia, in Montana	State Government	$73,510
TOTAL				**$456,310**

Nebraska				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0184.00	Potato Cyst Nematode Soil Survey	State Government	$28,000
1S	1S.0194.00	Nebraska Khapra Beetle Survey	State Government	$5,000
TOTAL				**$33,000**

Nevada				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0038.00	Bundled Phytophthora survey for P. ramorum and other priority species in nurseries and environments	State Government	$25,000
1S	1S.0073.00	Cyst nematode survey in agricultural crops	State Government	$34,000
1S	1S.0077.00	Solanaceous Commodity Survey	State Government	$30,000
1S	1S.0092.00	Vegetable Crops Pest Sruvey	State Government	$16,000
1S	1S.0093.00	Khapra Beetle Survey	State Government	$5,043
1S	1S.0094.00	Palm Commodity Survey	State Government	$14,000
1S	1S.0097.00	Asian Defoliator Survey	State Government	$16,000
TOTAL				**$140,043**

New Hampshire				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0049.00	Vegetable Crops Pest Survey	State Government	$5,865
1S	1S.0050.00	Asian Defoliator Survey	State Government	$4,600
5	5.0053.00	Firewood Outreach	State Government	$15,020
5	5.0206.00	Forest Pest Outreach FY2018	Academia	$45,000
6	6.0048.00	Patterns and consequences of complex interactions between ash tree size and resistance to Emerald ash borer and effects	Academia	$116,135
6	6.0055.00	Effects of Emerald Ash Borer density and tree condition on parasitism by an introduced biocontrol wasp	Academia	$92,867
TOTAL				**$279,487**

New Jersey				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0240.00	EWB/BB Nursery Stock Pathway Survey	State Government	$15,000
1S	1S.0413.00	Stone Fruit Commodity Survey	State Government	$25,000
1S	1S.0519.00	Phytophthora ramorum program nursery survey	State Government	$15,000
5	5.0057.00	Forest Pest Outreach and Survey	State Government	$28,026
TOTAL				**$83,026**

New Mexico				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0223.00	Nut Pest Survey	State Government	$25,000
TOTAL				**$25,000**

New York				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0292.00	Improving detection and dispersal models for Asian longhorned beetle to enhance prediction of infestation dynamics	Non-Profit	$76,032
1S	1S.0549.00	Grape Commodity Survey	State Government	$120,000
1S	1S.0567.00	Stone Fruit Commodity Survey	State Government	$275,000
1S	1S.0575.00	Orchard Commodity Survey	State Government	$100,000
1S	1S.0590.00	Phytophthora ramorum Survey	State Government	$19,000
3	3.0180.00	NPDN and State Diagnostician Preparedness Training	Academia	$96,699
3	3.0224.00	Development of STAR-D AIM, the Accreditation Infastructure Management program, a tiered approach to diagnostic quality	Academia	$71,799
3	3.0227.00	Development and Delivery of a Plant Diagnostic Laboratory, External Auditor Training Workshop	Academia	$88,654
4	4.0543.00	Reinstating apple tree certification in New York	State Government	$194,000
5	5.0351.00	New training and outreach resources for First Detectors and educators	Academia	$87,221
5	5.0397.00	Honey Bee Health- First Responders	State Government	$18,982
6	6.0072.00	Safeguarding the US seed potato industry against emerging seed potato-borne pathogens that impact trade and farm viabili	Academia	$481,156
6	6.0150.00	Ground Verification of Hemlock Stands Detected through Remote Sensing; Modeling how new Technology can be used to deline	Private Entity	$40,436
6	6.0343.00	Deregulation and Enhanced Regulatory Activities of Golden Nematode (Globodera rostochiensis) in NY	State Government	$140,000
6	6.0470.00	Saving ash trees in “aftermath” forests using EAB parasitoids	Academia	$60,122
TOTAL				**$1,869,101**

North Carolina				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0231.00	P. ramorum: Dynamic spatial-temporal modeling to predict the probability of disease establishment in Eastern US	Academia	$83,260
1A	1A.0298.00	Improvement and implementation of the OPEP mollusk impact assessment model	Academia	$111,649
1A	1A.0300.00	Analytical support for potential impact assessments of pests on the CAPS commodity survey lists	Academia	$89,654
1A	1A.0301.00	Eradication Analysis & Decision Support (eRADS)	Academia	$110,080
1A	1A.0338.00	Integrative Spatiotemporal Risk Maps of Fruit Flies	Academia	$108,053
1A	1A.0361.00	Development and use of a model to objectively categorize and prioritize exotic pests for survey and response	Academia	$158,952
1S	1S.0020.00	Asian defoliators	State Government	$6,394
1S	1S.0022.00	State Specific Survey for Phytophthora ramorum and P. kernoviae in North Carolina	State Government	$8,929
1S	1S.0051.00	Exotic Pest Survey of Grape in North Carolina	State Government	$5,474
1S	1S.0052.00	Walnut Twig Beetle/Thousand Cankers Disease of Black Walnut Survey	State Government	$8,500
1S	1S.0109.00	Solanaceous Exotic Plant Pest Survey for North Carolina	State Government	$9,208
3	3.0542.02	Development of More Rapid and Reliable Diagnostic Tools for All Life Stages of Anastrepha and Other Pest Fruit Flies	Academia	$220,094
5	5.0107.00	Invasive Pest Outreach	State Government	$19,900
5	5.0358.01	Provision of Specimens and Displays of Invasive Insects to Outreach and Training	Academia	$3,800
5	5.0358.02	Provision of Specimens and Displays of Invasive Insects to Outreach and Training	Academia	$19,987
6	6.0299.00	Enhancing Exotic Plant-Pest Emergency Response by Creating New Pest	Academia	$306,039

		Response Guidelines (NPRGs) with University Collabor		
6	6.0356.00	Identifying Spread of Crape Myrtle Bark Scale and Potential Native Biological Control Agents in North Carolina	State Government	$23,756
6	6.0357.00	A multifaceted approach for classical biological control of Alligatorweed in Cooler Areas of Its Range	State Government	$23,556
6	6.0364.01	A CRISPR-based antimicrobial system for the targeted removal of bacterial plant pathogens.	Academia	$250,745
6R	6R.0539.06	Systems approach for the management of coffee berry borer in Hawaii and Puerto Rico with emphasis on biological control	Academia	$45,000
TOTAL				**$1,613,030**

North Dakota				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0161.00	Khapra Beetle Survey	State Government	$7,000
1S	1S.0201.00	Cyst Nematode Survey	State Government	$12,700
1S	1S.0211.00	Cyst Nematode (PCN) Survey	State Government	$75,000
1S	1S.0365.00	Grape Commodity Survey ND	Academia	$40,000
TOTAL				**$134,700**

Ohio				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0183.00	Evaluating the extent of attack, determinants of susceptibility, and tolerance of cultivated olive, Olea europaea to EAB	Academia	$67,058
1S	1S.0303.00	Nursery-Orchard Commodity Survey Work Plan	State Government	$60,000
1S	1S.0306.00	Grape Commodity Survey	State Government	$20,000
1S	1S.0308.00	Phytophthora ramorum Nursery Soil Container Mix Survey	State Government	$10,000
1S	1S.0310.00	Thousand Cankers Disease of Walnut Survey	State Government	$20,000
6	6.0368.04	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$166,065
6	6.0437.02	Use of Unmanned Aircraft System (UAS) Swarm Technology for Sterile Insect Technique Release, Survey, and Treatment	APHIS	$361,727
6	6.0465.02	Survey of Rangeland with Remote Sensing Tools to Delimit Grasshopper Populations in the Malheur National Wildlife Refuge	Private Entity	$167,994
TOTAL				**$872,844**

Oklahoma				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0439.00	Stone Fruit Commodity Survey-Oklahoma	Academia	$18,000
5	5.0262.00	Emerald Ash Borer and Forest Pest Awareness and Outreach Campaign	State Government	$9,054
TOTAL				**$27,054**

Oregon				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0547.01	Population genetic analysis of Phytophthora ramorum: Evaluating the threat of forest to nursery spread	Non-APHIS-Federal	$92,764
1A	1A.0547.02	Population genetic analysis of Phytophthora ramorum: Evaluating the threat of forest to nursery spread	Non-APHIS-Federal	$103,674
1S	1S.0114.00	Cooperative Asian Defoliator Survey	State Government	$277,000
1S	1S.0122.00	Grape Pest and Disease Survey	State Government	$80,000
1S	1S.0163.00	Exotic Mollusk Survey	State Government	$40,000
1S	1S.0221.00	Survey of Information Technology Facilities in Oregon for Exotic Terrestrial Plant Pests and Diseases	State Government	$40,000
1S	1S.0233.00	PHYTOPHTHORA SPECIES SURVEY IN OREGON	State Government	$40,000
1S	1S.0336.00	Exotic Fruit Fly Survey	State Government	$30,000
3	3.0214.00	Regional Identification Center for Bark Beetle and other woodboring beetles	Industry	$108,239
3	3.0391.00	Improving sampling and detection protocols to survey Ribes germplasm for black currant reversion virus.	Non-APHIS-Federal	$21,479
4	4.0187.01	Harmonizing Grapevine Nursery Stock Certification Programs in the Pacific Northwest	State Government	$5,500
4	4.0187.02	Harmonizing Grapevine Nursery Stock Certification Programs in the Pacific Northwest	State Government	$28,705
4	4.0187.03	Harmonizing Grapevine Nursery Stock Certification Programs in the Pacific Northwest	State Government	$21,776
4	4.0187.04	Harmonizing Grapevine Nursery Stock Certification Programs in the Pacific Northwest	State Government	$99,440
4	4.0370.00	Early detection of Phytophthora aff. kernoviae from commercial nurseries in Oregon and California	Academia	$129,235
4	4.0373.00	Determining the minimum treatment area and importance of soil moisture	Academia	$73,642

		for effective soil solarization in nurseries		
4	4.0638.01	Caneberry nursery production in the U.S.: What are the high risk viruses circulating in the system?	Non-APHIS-Federal	$3,454
4	4.0638.02	Caneberry nursery production in the U.S.: What are the high risk viruses circulating in the system?	Non-APHIS-Federal	$3,518
4	4.0638.03	Caneberry nursery production in the U.S.: What are the high risk viruses circulating in the system?	Non-APHIS-Federal	$79,390
4	4.0638.04	Caneberry nursery production in the U.S.: What are the high risk viruses circulating in the system?	Non-APHIS-Federal	$42,960
4	4.0664.00	Establishing Strawberry Nursery Stock Certification Program in Oregon	State Government	$69,307
5	5.0157.00	Economic Benefits from Nursery Certification Programs for Fruit Tree, Grape, and Berry Crops	State Government	$70,289
5	5.0572.01	Don’t Pack a Pest Phase III: A Systems Solution Approach to Reducing Risks of Pest Transport by International Student	State Government	$1,000
5	5.0572.02	Don’t Pack a Pest Phase III: A Systems Solution Approach to Reducing Risks of Pest Transport by International Student	State Government	$1,000
5	5.0572.03	Don’t Pack a Pest Phase III: A Systems Solution Approach to Reducing Risks of Pest Transport by International Student	State Government	$40,000
5	5.0572.04	Don’t Pack a Pest Phase III: A Systems Solution Approach to Reducing Risks of Pest Transport by International Student	State Government	$89,000
5	5.0603.00	Using citizen science and outreach education to reduce the risk of Phytophthora ramorum spread in Oregon forests	State Government	$143,303
6	6.0160.00	Light Brown Apple Moth Response and Eradication	State Government	$112,400
6	6.0260.00	Gypsy Moth Response	State Government	$271,376
6	6.0441.01	Development of Phasmarhabditis hermaphrodita (Nematoda) as a biological control agent of invasive gastropods in Oregon	Academia	$18,320
6	6.0441.02	Development of Phasmarhabditis hermaphrodita (Nematoda) as a biological control agent of invasive gastropods in Oregon	Academia	$75,805

6	6.0564.00	Identification of germplasm with resistance to potato cyst nematodes	Non-APHIS-Federal	$92,776
6	6.0606.01	Biological Control of Exotic Scarab Populations Using Zone IPM at High Quarantine Risk Ports.	State Government	$15,214
6	6.0606.02	Biological Control of Exotic Scarab Populations Using Zone IPM at High Quarantine Risk Ports.	State Government	$10,000
6	6.0606.03	Biological Control of Exotic Scarab Populations Using Zone IPM at High Quarantine Risk Ports.	State Government	$30,000
6	6.0606.04	Biological Control of Exotic Scarab Populations Using Zone IPM at High Quarantine Risk Ports.	State Government	$10,000
6	6.0606.05	Biological Control of Exotic Scarab Populations Using Zone IPM at High Quarantine Risk Ports.	State Government	$50,000
6	6.0620.00	Enhancing mitigation responses to the new threat of an emerging EU1 Phytophthora ramorum population in Oregon	Academia	$126,470
TOTAL				**$2,547,036**

Pennsylvania				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0250.00	Grape Commodity Pest Survey	State Government	$60,000
1S	1S.0251.00	Solanaceus Commodity Pest Survey	State Government	$60,000
1S	1S.0253.00	Walnut Twig Beetle Survey	State Government	$30,000
1S	1S.0254.00	Stone Fruit Commodity Survey	State Government	$40,000
1S	1S.0377.00	Public Garden Surveys	Non-Profit	$100,000
1S	1S.0422.01	Exotic Disease Survey in Orchards	State Government	$23,000
1S	1S.0422.02	Exotic Disease Survey in Orchards	State Government	$40,000
1S	1S.0428.00	Pennsylvania Small Fruits Disease Survey	State Government	$45,000
1S	1S.0553.00	Phytophthora ramorum Program Nursery Survey and Regional Lab Identification Support	State Government	$30,000
3	3.0185.02	Development of Attractants and Improved Trap Designs for Exotic Wood Borers	State Government	$19,844
3	3.0316.00	Development of an Efficient Trap for Early Detection of Exotic Hymenoptera, With a Potential for Native Bee Monitoring	State Government	$53,115
5	5.0226.00	Sentinel Plant Network	Non-Profit	$275,850
5	5.0277.00	Forest Pest Outreach PA	State Government	$64,572
TOTAL				**$841,381**

Puerto Rico				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
3	3.0325.00	Insect rearing to support OWB research programs	Academia	$75,000
3	3.0566.00	Caribbean Invasive Plants	APHIS	$180,950
6R	6R.0539.04	Systems approach for the management of coffee berry borer in Hawaii and Puerto Rico with emphasis on biological control	Academia	$80,000
TOTAL				**$335,950**

Rhode Island				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0095.00	Vegetable Crop Pest Survey	State Government	$16,000
1S	1S.0645.00	Stone Fruit Commodity Survey	Academia	$14,000
1S	1S.0654.00	Grape Commodity Survey	Academia	$16,000
TOTAL				**$46,000**

South Carolina				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0154.00	AgPathway Multiple Pests Survey	State Government	$26,000
1S	1S.0309.00	Bundled Exotic Wood Borer/Bark Beetle Survey	State Government	$15,000
1S	1S.0311.00	Phytophthora ramorum Nursery Survey	State Government	$20,000
1S	1S.0312.00	Palm Commodity Survey	State Government	$15,000
5	5.0302.00	Jr. Invasive Inspector Program	State Government	$26,747
5	5.0302.00	Forest Pest Outreach and Education (EAB and DMF)	State Government	$37,445
TOTAL				**$140,192**

South Dakota				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0110.00	Khapra Beetle Survey	State Government	$6,779
TOTAL				**$6,779**

Tennessee				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0152.00	Phytophthora ramorum Survey	State Government	$20,000
1S	1S.0153.00	Nursery Commodity Survey	State Government	$60,000
1S	1S.0457.00	TN FY 18 Tomato Commodity Survey Farm Bill	Academia	$17,000
1S	1S.0544.00	Viruses of cultivated and volunteer (wild) grapevines in Tennessee	Academia	$29,000
1S	3.0192.00	A biosystematic identification and threat assessment tool for wood-boring longhorned beetles (family Cerambycidae)	Academia	$59,890
4	4.0366.00	Insecticide Drench Volume and Transplant Treatment Efficacy for Regulatory Pests in Containerized Nursery Stock	Academia	$77,317
5	5.0451.00	Forest Pest Outreach and Survey Project, Tennessee	Academia	$40,107
6	6.0375.01	Expansion of Japanese Biological Control by Fall Tiphia and Identification of Fall and Spring Tiphia Attractants	Academia	$56,261
6	6.0375.02	Expansion of Japanese Biological Control by Fall Tiphia and Identification of Fall and Spring Tiphia Attractants	Academia	$109,384
TOTAL				**$468,959**

Texas				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0125.00	Exotic Wood Borer/Bark Beetle Bundled Survey	Academia	$43,000
1S	1S.0425.00	Palm Commodity Survey	Academia	$60,000
1S	1S.0482.00	Stone Fruit Commodity Survey - Texas	Academia	$65,000
1S	1S.0484.00	Grape Commodity Survey - Texas	Academia	$40,000
1S	1S.0635.00	Amplified Mutli-Pest Citrus Commodity Survey for Texas	Non-Profit	$425,000
2	2.0098.00	Critical Entry Point Monitoring for the Pests of Biosecurity Concern	State Government	$685,000
3	3.0320.01	Molecular-based initiatives to support the Old World Bollworm Strategic Management Plan	Academia	$130,000
3	3.0401.01	Molecular Identification of Invasive Veronicellid Slugs	Academia	$52,922
5	5.0404.00	Texas Master Gardener Specialist - FIRST DETECTOR education program	Academia	$54,609
5	5.0479.00	Enhancing and Expanding the Sentinel Pest Network to Prevent the Introduction and Spread of High-consequence Pests	Academia	$60,938
5	5.0599.00	Enhancing Outreach Tools and Opportunities - USDA APHIS PPQ Texas	APHIS	$6,470
6	6.0396.01	Microbe identification resources to stop the spread of Anastrepha ludens	Academia	$94,923
6	6.0436.00	Effects of Electron Beam on Potato/Tomato Psyllid and Disease Transmission	APHIS	$132,480
TOTAL				**$1,850,342**

Utah				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0047.00	Asian Defoliator Survey	State Government	$15,000
1S	1S.0136.00	Orchard Commodity Survey	Academia	$17,000
5	5.0131.00	Invasive Pest Outreach	Academia	$49,995
TOTAL				**$81,995**

Vermont				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0082.00	Exotic Wood Borer/Bark Beetle Bundled Survey	State Government	$20,000
1S	1S.0088.00	Orchard Commodity Survey	State Government	$18,000
1S	1S.0126.00	Solanaceous Host Commodity Survey	State Government	$18,000
1S	1S.0127.00	Small Fruit Survey	State Government	$18,000
5	5.0026.00	Forest Pest Outreach Project	State Government	$72,618
TOTAL				**$146,618**

Virginia				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0297.00	Drone Assisted Surveys for Nursery and Specialty Crops	State Government	$15,000
1S	1S.0327.00	Phytophthora ramorum Nursery Survey	State Government	$25,000
1S	1S.0330.00	Grape Commodity Survey	State Government	$25,000
1S	1S.0332.00	Thousand Canker Disease/ Walnut Twig Beetle Delimiting and Monitoring Survey	State Government	$20,000
5	5.0091.00	Citizen Scientist Enhanced Thousand Canker Disease Survey	State Government	$9,943
TOTAL				**$94,943**

Washington				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1A	1A.0087.00	Identification of risk factors leading to arrival and establishment of exotic psyllids in North America	Non-APHIS-Federal	$68,900
1A	1A.0101.01	Development of Improved Trapping Systems	Academia	$67,497
1A	1A.0101.02	Development of Improved Trapping Systems	Academia	$72,227
1S	1S.0017.00	Asian Defoliator Survey	State Government	$277,000
1S	1S.0100.01	Survey for European Cherry Fruit Fly	Academia	$37,500
1S	1S.0100.02	Survey for European Cherry Fruit Fly	Academia	$37,500
1S	1S.0333.00	Hardwood Commodity Survey	State Government	$75,000
1S	1S.0334.00	Softwood Commodity Survey	State Government	$20,000
1S	1S.0372.00	Mollusk survey	State Government	$85,000
1S	1S.0409.00	Washington State Berry Pest Survey	State Government	$40,151
1S	1S.0411.00	Washington State Orchard Commodity Survey	State Government	$50,000
1S	1S.0417.00	Washington State Grape Commodity Survey	State Government	$120,000
3	3.0084.00	Molecular tools for the detection of root-knot nematode species of regulatory importance	Academia	$40,407
3	3.0177.00	Comparing capture rates of hot melt and traditional sticky inserts under field and laboratory conditions	State Government	$43,818
3	3.0400.03	Development of molecular tools for the detection and discrimination of gall forming nematodes in the family Anguinidae a	Academia	$87,261
3	3.0414.01	Western States Lepidoptera Identification Center	State Government	$1,727
3	3.0414.02	Western States Lepidoptera Identification Center	State Government	$144,839

4	4.0481.00	Assessment of Virus Status of Legacy Registered Apple Rootstock stoolbeds under Certification	State Government	$246,530
5	5.0179.00	Building Capacity and Awareness of Invasive Species in the Columbia River Gorge and Beyond – A Multiregional Approch	State Government	$69,550
5	5.0181.00	Improving the First Detector Network in Washington State	State Government	$77,000
5	5.0266.00	Tribes In Northwest Invasive Species Project (TINWISP)	Academia	$69,995
5	5.0592.00	Using Digital Microscopes to Engage the Public at Outreach Events	APHIS	$1,261
6	6.0075.00	Urban Forest Pest Emergency Preparation	State Government	$54,000
6	6.0323.00	Asian Gypsy Moth Response in Washington State	State Government	$275,000
6	6.0464.00	Vineyard snail eradication	State Government	$15,928
6	6.0483.00	Canopy Survey Training	State Government	$11,844
6	6.0492.00	Optimizing fungicide efficacy to limit the spread of foliar Phytophthoras in landscape infestations	Academia	$36,127
6	6.0569.00	Steam mitigation of invasive Phytophthora species at infested sites	Academia	$53,851
6	6.0582.00	Post-entry elimination of Megastigmus larvae in imported conifer seed	Academia	$36,514
TOTAL				**$2,216,427**

West Virginia				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0030.00	2018 West Virginia Asian Defoliator Survey	State Government	$15,000
1S	1S.0032.00	2018 West Virginia Nursery and Retail Plants Pest Survey (Phytophthora ramorum)	State Government	$25,000
1S	1S.0034.00	2018 West Virginia Solanaceous Commodity Survey	State Government	$11,000
1S	1S.0035.00	2018 West Virginia Stone Fruit Fruit Commodity	State Government	$6,500
5	5.0012.00	2018 West Virginia Invasive Forest Pest Outreach Project	State Government	$25,000
5	5.0137.00	Visitor Invasive Pest Outreach Project	State Government	$18,000
6	6.0005.00	Evaluation of the origin, epidemiology, and fungicide use in controlling Diplodia corticola, a new pathogen of red oak.	Non-APHIS-Federal	$17,250
6	6.0612.00	Implementation of Small Unmanned Aerial Systems for the Management of Invasive Plants in Eastern North America Using Bio	Academia	$76,393
TOTAL				**$194,143**

Wisconsin				
Goal	**Project #**	**Title**	**Cooperator Type**	**Funding Level**
1S	1S.0242.00	Exotic Wood Borer/Bark Beetle Survey	State Government	$26,000
1S	1S.0288.00	Potato Cyst Nematode Survey	Academia	$58,000
1S	1S.0416.00	Pathway Survey	State Government	$95,000
5	5.0239.00	Wisconsin Forest Pest & Disease Outreach Initiative	State Government	$25,465
5	5.0346.00	PlayCleanGo Campaign Public Outreach Expansion	Non-Profit	$134,378
5	5.0350.00	Investing in the Future—Wisconsin Native American Internship Program	Non-Profit	$51,182
5	5.0386.00	Increased monitoring with Wisconsin First Detector Network	Academia	$49,652
TOTAL				**$439,677**

Tribal Nations				
Goal	**Project #**	**Title**	**Cooperator**	**Funding Level**
1S	1S.0247.00	Weed Survey affecting Wild Rice on Tribal Lands	Leech Lake Band of Ojibwe	$10,000
5	5.0167.00	Utilizing novel tools and methods to engage tribal community members in invasive species reporting and control	Leech Lake Band of Ojibwe	$89,337
5	5.0380.00	Kaibab Paiute Tribe Outreach and Education Program	Kaibab Band of Paiute	$70,438
6	6.0024.00	Emerald Ash Borer Mitigaton and Monitoring of Black Ash Trees	Pokagon Band of Potawatomi	$98,719
6	6.0274.00	Nez Perce Tribe Bio-control Project-Noxious/Invasive Weed Survey and Control	Nez Perce Tribe	$250,000
TOTAL				**$518,494**

National				
Goal	**Project #**	**Title**	**Cooperator**	**Funding Level**
1A	1A.0371.01	Host Range and Genetic Diversity of the Velvet Longhorned Beetle	APHIS	$40,708
1A	1A.0371.02	Host Range and Genetic Diversity of the Velvet Longhorned Beetle	APHIS	$12,527
1A	1A.0371.03	Host Range and Genetic Diversity of the Velvet Longhorned Beetle	APHIS	$39,380
1A	1A.0371.04	Host Range and Genetic Diversity of the Velvet Longhorned Beetle	APHIS	$6,000
1S	1S.0488.00	Survey Supply Support	APHIS	$400,000
1S	1S.0589.00	National Honey Bee Pest and Diseases Survey	University of Maryland	$1,148,246
3	3.0185.01	Development of Attractants and Improved Trap Designs for Exotic Wood Borers	APHIS	$172,280
3	3.0185.03	Development of Attractants and Improved Trap Designs for Exotic Wood Borers	APHIS	$16,282
3	3.0215.01	Lure and Color Trap Development for monitoring of Coconut Rhinoceros Beetle, Oryctes rhinoceros.	APHIS	$22,000
3	3.0215.02	Lure and Color Trap Development for monitoring of Coconut Rhinoceros Beetle, Oryctes rhinoceros.	APHIS	$10,000
3	3.0229.02	Attraction and Detection of the Fruit Piercing Moth	APHIS	$3,000
3	3.0235.00	Cherry Blossom Moth Pheromone	APHIS	$18,000
3	3.0236.02	Pheromones in the Euwallacea fornicatus species complex	APHIS	$22,661
3	3.0252.01	Lepidoptera Attractants	APHIS	$39,510
3	3.0252.02	Lepidoptera Attractants	APHIS	$40,460
3	3.0305.01	Development of a low-cost DNA extraction method to maximize identification of pest insects from sticky traps	APHIS	$196,565
3	3.0305.02	Development of a low-cost DNA extraction method to maximize identification of pest insects from sticky traps	APHIS	$34,000

3	3.0305.03	Development of a low-cost DNA extraction method to maximize identification of pest insects from sticky traps	APHIS	$20,607
3	3.0401.02	Molecular Identification of Invasive Veronicellid Slugs	APHIS	$11,250
3	3.0406.03	Resolving species complexes of Bactrocera fruit flies	APHIS	$12,500
3	3.0433.02	Rapid and accurate diagnostic identification of phytoplasmas	APHIS	$97,500
3	3.0433.03	Rapid and accurate diagnostic identification of phytoplasmas	APHIS	$10,000
3	3.0440.01	Development of molecular methods to detect Dickeya spp. and specifically, D. solani.	APHIS	$13,975
3	3.0542.01	Development of More Rapid and Reliable Diagnostic Tools for All Life Stages of Anastrepha and Other Pest Fruit Flies	APHIS	$24,000
3	3.0542.05	Development of More Rapid and Reliable Diagnostic Tools for All Life Stages of Anastrepha and Other Pest Fruit Flies	APHIS	$16,000
3	3.0588.00	Metagenomics with MinION for diagnostics of multipathogens from citrus with emphasis to HLB, CiLV CBS, and Phytophthora	APHIS	$236,723
3	3.0601.00	Evaluation & verification of PCR methods for detection of the Wheat Blast pathogen Magnaporthe oryzae Triticum pathotype	APHIS	$88,500
3	3.0630.01	TGS metagenomics for the diagnostics of Phytophthora species with emphasis to pathogens of concern.	APHIS	$121,024
3	3.0630.02	TGS metagenomics for the diagnostics of Phytophthora species with emphasis to pathogens of concern.	Non-APHIS Federal	$30,750
4	4.0120.01	Audit Training for State and Federal Personnel – Plant Pest Management Accreditation Programs	National Plant Board	$20,000
4	4.0120.02	Audit Training for State and Federal Personnel – Plant Pest Management Accreditation Programs	National Plant Board	$20,000
4	4.0387.00	National Harmonized Systems Approach to Nursery Certification	Horticultural Research Institute	$117,100

5	5.0667.00	Hungry Pests Campaign continuation	APHIS	$395,291
6	6.0364.02	A CRISPR-based antimicrobial system for the targeted removal of bacterial plant pathogens.	APHIS	$74,700
6	6.0368.01	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$24,600
6	6.0368.02	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$1,733
6	6.0368.03	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$1,733
6	6.0368.05	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$1,734
6	6.0368.06	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$5,000
6	6.0368.07	The Use of Unmanned Aircraft Systems to Aid in the Survey and Detection of Asian Long-horned Beetles, and other pests	APHIS	$5,000
6	6.0396.02	Microbe identification resources to stop the spread of Anastrepha ludens	APHIS	$1,350
6	6.0437.01	Use of Unmanned Aircraft System (UAS) Swarm Technology for Sterile Insect Technique Release, Survey, and Treatment	APHIS	$57,793
6R	6R.0539.01	Systems approach for the management of coffee berry borer in Hawaii and Puerto Rico with emphasis on biological control	APHIS	$125,427
TOTAL				**$3,755,909**