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Description of document:	Department of Agriculture (USDA) Foreign Agricultural Service (FAS) records related to WeatherPredict Consulting Inc. contracts AG3151Cl 10017 and AG3151Cl 70009 for Surface Wetness assessment via Passive Microwave Satellite Imagery, 2013
Requested date:	13-December-2018
Release date:	14-March-2019
Posted date:	20-January-2020
Source of document:	FOIA Request Departmental FOIA Officer 1400 Independence Avenue, SW South Building Room 4104 Washington, DC 20250-0706 Email: USDAFOIA@ocio.usda.gov

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USDA

United States Department of Agriculture

Trade and Foreign Agricultural Affairs

Foreign Agricultural Service

1400 Independence Avenue, S.W.
Stop 1004
Washington, D.C.
20250-1004

March 14, 2019

Delivered via Electronic Mail

Re: Freedom of Information Act Request FOIA Request No. 21-2019
Final Response

This is the final response to your Freedom of Information Act (FOIA) request to the U.S. Department of Agriculture (USDA) Foreign Agricultural Service (FAS). You requested a copy of the Statement of Work and a copy of the final report/ presentation provided to FAS under the contract by contractor WeatherPredict Consulting, for contracts numbered AG3151C110017 and AG3151C170009.

Your request dated December 13, 2018 was received in this office on February 8, 2019. The FAS FOIA Office was shut down from December 22, 2018 through January 27, 2019, which prohibited FOIA requests from being processed.

Your request has been processed under the FOIA, 5 U.S.C. § 552.

A search for responsive records was conducted manually and electronically by staff members from the Office of Global Analysis (OGA), International Production Assessment Division (IPAD). IPAD staff consulted with the Farm Service Agency's Acquisition Management Division that maintains contracting files for FAS OGA contracts. The search yielded thirteen (13) pages of responsive records. After carefully reviewing the responsive documents, the FAS has determined that they are appropriate for public release. They are enclosed in their entirety; no exemptions have been claimed.

The final report contains proprietary information purchased from the vendor with licensing restrictions which do not allow for distribution. Therefore, the final report has been withheld.

The following information provides the basis for our withholding of information under the applicable FOIA Exemption (b)(4):

USDA is an Equal Opportunity Employer

FOIA Exemption 4 protects trade secrets and commercial or financial information obtained from a person that is privileged or confidential. The courts have held that this subsection protects (a) confidential commercial information, the disclosure of which is likely to cause substantial harm to the competitive position of the person who submitted the information and (b) information that was voluntarily submitted to the government if it is the kind of information that the provider would not customarily make available to the public.

You have the right to appeal this determination. Should you wish to do so, the appeal must be received within 90 days of the date of the response letter. The written appeal must clearly indicate that a FOIA appeal is being made and should be sent to: Administrator, Foreign Agricultural Service, U.S. Department of Agriculture, 1400 Independence Avenue, S.W., Mail Stop 1004, Washington, D.C. 20250-1004. Your appeal should include a copy of the original request, the response to the request, and a statement of your reason for the appeal. To facilitate the processing of an appeal, the phrase "FOIA APPEAL" in capital letters should be placed on the front of the envelope.

Provisions of the FOIA allow us to recover part of the cost of complying with your request. In this instance, FAS will not charge the fees incurred in the processing of this request.

If you have any questions regarding this final response letter, please contact the FOIA Public Liaison, Ms. Ellen Dougherty at (202) 720-7115 or electronically at ellen.dougherty@fas.usda.gov. Please reference FOIA Case No. 21-2019 in any future correspondence with us on this matter.

We appreciate the opportunity to assist you.

Sincerely,

Patrick Packnett
Acting Deputy Administrator
Office of Global Analysis

Enclosure(s): Responsive Records sent via email (13) pages

USDA is an Equal Opportunity Employer

Surface Wetness Products Derived From Passive Microwave Satellite Imagery
Section C- Performance Work Statement (PWS)

C.1 Background

United States Department of Agriculture (USDA), Foreign Agricultural Service, International Production Assessment Division (FASIIPAD) strategic mission and mandate is to produce the most objective and accurate assessment oithe global agricultural production outlook, and the conditions affecting food security in the world. FASIJPAD utilizes satellite imagery to monitor crop production to help fulfill FASIJPAD's mission.

In addition, the surface wetness product is considered a critical global data product on par with ground weather station data and required by FASIIPAD. The surface wetness products are independent of weather station data and therefore tend to have better global spatial coverage and resolution than ground we Surface Wetness products derived from passive microwave satellite imagery is an essential time series data stream for monitoring global crop conditions for USDA, Global Crop Production Intelligence System (GCPIS) ofthe IPAD, Office of Global Analysis (OGA), FAS.

Organizational Background

FAS/IPAD utilizes remote sensing analyses to provide timely, relevant and strategic imagery intelligence and geospatial information in support of the USDA/FAS marketing and export credit decisions, as well as promote international trade. Early waming of unusual crop conditions or changes in production outlook detected by satellite imagery helps to provide an informed edge in commodity trading and helps to maximize U.S. farmer returns.

The USDA's GCPIS has its heritage with the LACIE and AgriStars programs employed during the 1970's and 1980's, respectively. Since 1992, IPAD has implemented this operational program from USDA Headquruters in Washington, DC. This function is congressionally mandated by the Code of Federal Regulations, Title 7 Agriculture, Volume 1 7CFR2.43(3).

Contract Background

FAS/IPAD began using the satellite-derived surface wetness product to monitor crop conditions when the products became readily available in 2001 from NOAA. However, NOAA discontinued producing the product around 2003 and WPC later bought the proprietary algorithms and product, with the global surface wetness products from WPC proving to be critical for monitoring global crop conditions by USDA/IPAD's program. The surface wetness products are derived from passive microwave satellite imagery and they are not affected by cloud cover as near-infrared satellite imagery.

C.2 Objective

The purpose of the contract is to acquire the surface wetness products derived from passive microwave satellite imagery. These products are required by IPAD to assist IPAD crop analyst with the necessary analysis tools to make objective and accurate assessments of the global agricultural production outlook and the conditions affecting global food security. The goal is to

deliver surface wetness products efficiently and effectively in an operational environment where near real-time delivery is critical to the USDNFAS mission.

C.3 Scope of Work

The scope is to deliver weekly and monthly global surface wetness and temperature anomaly derived from the Special Sensor Microwave Imager (SSM/I) satellite constellation. These global satellite-derived products require delivery to FAS/IPAD on Monday of each week, with continental maps in jpeg format and the global data set in CSV and Land Information System (LIS) formats.

C.4 Tasks and License

The Following are the Task requirements:

Task 1: Orientation Briefing and Project Plan

The Contractor will demonsh·ate confirmation of their understanding of the work to be accomplished under this PWS by preparing a Project Plan and make arrangements to deliver the imagery as specified by the delivery schedule within the Project Plan. The Contract Officer and Contract Officer's Technical Representative (COTR) should be notified of any foreseen problems in delivering the imagery according to the technical specifications listed.

The conh·actor shall prepare a Project Plan to be reviewed by the COTR detailing expected delivery schedule and .ftp access for FAS/JPAD. The Project Plan shall detail the key activities and milestones.

The COTR shall receive the Project Plan in both hard copy and electronic form, Microsoft Word. Based on the Project Plan, the COTR will provide approval to move forward on activities planned within two business days upon receipt of the Project Plan. The contractor shall request prior approval on all activities not included in the plan or any modifications to the plan after approval has been given.

Deliverable: Within one week of the award a Draft Project plan should be submitted and delivered each Monday rooming by 8AM.

Task 2: Historical Data

Historical Imagery from the period of October 1-May 15,2011 is expected to be delivered.

*At the end of the contract the contractor must have provided a total of 18-months of weekly and monthly products from October 1, 2010-March 31, 2012 which is the life of the contract.

Deliverable: Delivered within two weeks after the contract is awarded.

Task 3: Weekly SSMI Maps & global Data Sets (Imagery)

This task requires Satellite Imagery to deliver on a weekly schedule SSM! surface Wetness Anomalies, Snow Cover Anomalies, and Temperature Anomalies injpeg format. CSV files represent a global domain with a USDA provided crop mask applied.

Deliverable: One Unit is an annual subscription consisting of 52 weeks of map deliverables.

Deliverable: On a weekly basis CSV formatted data files for surface wetness and temperature anomaly products.

Deliverable: One unit is an annual subscription consisting of 52 weeks of global CSV files. The weekly SSM/I product images should be delivered injpeg format with provincial boundaries for each country draped over the SSM/I imagery products.

Maps have continental and country boundaries and are provided for the following regions: North America, South America, Europe, Africa, Middle East, South Asia, East Asia, Southeast Asia, Former Soviet Union, and Australia/New Zealand

Task 4: Monthly SSMI Maps

Deliverable: Monthly SSMI Surface Wetness Anomalies, Snow Cover Anomalies, and Temperature Anomalies, in jpeg map format.

Deliverable: One Unit is an Annual Subscription -12 deliverables- 12 months of maps.

Deliverable: One Unit is an Annual Subscription. Monthly SSM/I product images should be delivered injpeg format with provincial boundaries for each country draped over the SSM/I imagery products.

Maps have continental and country boundaries, and are provided for the following regions: North America, South America, Europe, Africa, Middle East, South Asia, East Asia, Southeast Asia, Fonner Soviet Union, and Australia/New Zealand.

Task 5: Monthly Status Report

The contractor shall document all products and time delivered to FASliPAD. The monthly status report shall include, at a minimum, a detailed progress report of all imagery collected and delivered for the monthly period.

Deliverable: Shall be delivered by the 10th of each of the following month.

Tasl{ 6: Final Report

The contractor sha11 provide a final report, to the COTR, at the conclusion of Period of Performance. The report will summarize all imagery delivered by week, month, and entire period of performance.

Deliverable: Shall be delivered by the 10th of the month after the Period of Performance expiration.

Product License

The above products are for internal use for FASIIPAD only and not to be distributed. All data and maps, and any derivatives thereof, will be kept within the FAS/IPAD group and its computing infrastructure. No data, maps, or derivatives thereof will be published without written permission of the contractor. The potential contractor agrees that information from this Product may be demonstrated in USDA lock-up proceedings.

*The contract can be terminated if a required weekly or monthly SSM/I product or deliverable is delivered two-weeks late.

Surface Wetness Products Derived From Passive Microwave Satellite Imagery

Section C- Performance Work Statement (PWS) – *27 September 2013*

C.l: Background

United States Department of Agriculture (USDA), Foreign Agricultural Service, International Production Assessment Division (FASIIPAD) strategic mission and mandate is to produce the most objective and accurate assessment of the global agricultural production outlook, and the conditions affecting food security in the world. FASIJPAD utilizes satellite imagery to monitor crop production to help fulfill FASIJPAD's mission.

In addition, the surface wetness product is considered a critical global data product on par with ground weather station data and required by FASIIPAD. The surface wetness products are independent of weather station data and therefore tend to have better global spatial coverage and resolution than ground we Surface Wetness products derived from passive microwave satellite imagery is an essential time series data stream for monitoring global crop conditions for USDA, Global Crop Production Intelligence System (GCPIS) of the IPAD, Office of Global Analysis (OGA), FAS.

Organizational Background

FAS/IPAD utilizes remote sensing analyses to provide timely, relevant, and strategic imagery intelligence and geospatial information in support of the USDA/FAS marketing and export credit decisions, as well as promote international trade. Early warming of unusual crop conditions or changes in production outlook detected by satellite imagery provides an informed edge in commodity trading and helps to maximize U.S. farmer returns.

The USDA's GCPIS has its heritage with the LACIE and AgriStars programs employed during the 1970's and 1980's, respectively. Since 1992, IPAD has implemented this operational program from USDA Headquarters in Washington, DC. This function is congressionally mandated by the Code of Federal Regulations, Title 7 Agriculture, Volume 1 7 CFR2.43 (3).

Contract Background

FAS/IPAD began using the satellite-derived surface wetness product to monitor crop conditions when the products became readily available in 2001 from NOAA. However, NOAA discontinued producing the product around 2003 and WPC later bought the proprietary algorithms and product, with the global surface wetness products from WPC proving to be critical for monitoring global crop conditions by USDA/IPAD's program. The surface wetness products are derived from passive microwave satellite imagery and they are not affected by cloud cover as near-infrared satellite imagery.

C.2 **Objective**

The purpose of the contract is to acquire the surface wetness products derived from passive microwave satellite imagery. These products are required by IPAD to assist IPAD crop analyst with the necessary analysis tools to make objective and accurate assessments of the global agricultural production outlook and the conditions affecting global food security. The goal is to deliver surface wetness products efficiently and effectively in an operational environment where near real-time delivery is critical to the USDNFAS mission.

C.3 **Scope of Work**

The scope is to deliver weekly and monthly global surface wetness and temperature anomaly derived from the Special Sensor Microwave Imager (SSM/I) satellite constellation. These global satellite-derived products require delivery to FAS/IPAD on Monday of each week, with continental maps in jpeg format and the global data set in CSV and Land Information System (LIS) formats.

C.4 Tasks and License

The Following are the Task requirements:

Task 1: Orientation Briefing and Project Plan

The Contractor will demonstrate confirmation of their understanding of the work to be accomplished under this PWS by preparing a Project Plan and make arrangements to deliver the imagery as specified by the delivery schedule within the Project Plan. The Contract Officer and Contract Officer's Technical Representative (COTR) should be notified of any foreseen problems in delivering the imagery according to the technical specifications listed.

The contractor shall prepare a Project Plan to be reviewed by the COTR detailing expected delivery schedule and .ftp access for FAS/JPAD. The Project Plan shall detail the key activities and milestones.

The COTR shall receive the Project Plan in both hard copy and electronic form, Microsoft Word. Based on the Project Plan, the COTR will provide approval to move forward on activities planned within two business days upon receipt of the Project Plan. The contractor shall request prior approval on all activities not included in the plan or any modifications to the plan after approval has been given.

Deliverable: Within one week of the award a Draft Project plan should be submitted and delivered each Monday rooming by 8AM.

Task 2: Historical Data

Historical Imagery from the period of October 1-May 15, 2011 is expected to be delivered.

*At the end of the contract the contractor must have provided a total of 18-months of weekly and monthly products from October 1, 2010-March 31, 2012 which is the life of the contract.

Deliverable: Delivered within two weeks after the contract is awarded.

Task 3: Weekly SSMI Maps & global Data Sets (Imagery)

This task requires Satellite Imagery to deliver on a weekly schedule SSM! surface Wetness Anomalies, Snow Cover Anomalies, and Temperature Anomalies injpeg format. CSV files represent a global domain with a USDA provided crop mask applied.

Deliverable: One Unit is an annual subscription consisting of 52 weeks of map deliverables.

Deliverable: On a weekly basis CSV formatted data files for surface wetness and temperature anomaly products.

Deliverable: One unit is an annual subscription consisting of 52 weeks of global CSV files. The weekly SSM/I product images should be delivered in jpeg format with provincial boundaries for each country draped over the SSM/I imagery products.

Maps have continental and country boundaries and are provided for the following regions: North America, South America, Europe, Africa, Middle East, South Asia, East Asia, Southeast Asia, Former Soviet Union, and Australia/New Zealand

Task 4: Monthly SSMI Maps

Deliverable: Monthly SSMI Surface Wetness Anomalies, Snow Cover Anomalies, and Temperature Anomalies, in jpeg map format.

Deliverable: One Unit is an Annual Subscription -12 deliverables- 12 months of maps.

Deliverable: One Unit is an Annual Subscription. Monthly SSM/I product images should be delivered in jpeg format with provincial boundaries for each country draped over the SSM/I imagery products.

Maps have continental and country boundaries, and are provided for the following regions: North America, South America, Europe, Africa, Middle East, South Asia, East Asia, Southeast Asia, Former Soviet Union, and Australia/New Zealand.

Task 5: Monthly Global Crop Yield Forecast Reports

The contractor shall deliver SSMI data-based derivatives of monthly yield forecasts. The acquisition and delivery of monthly yield forecasts would begin at the crop reproduction stage and proceed throughout the critical period of the growing season to crop maturity, providing reliable and advanced forecast as the crop advances through the various stages: vegetative, reproduction, seed pod filling, and maturity.

The satellite derived surface observations over the target region will provide monthly yield forecasts across at several spatial scales including national, states, provinces, oblasts and countries, for the select crops such as soybeans, corn, cotton, wheat, and rapeseed. Forecasts will be made on the agreed upon scale, with the likelihood that they will be calibrated at a scale comparable in size to the U.S. crop districts.

Deliverable:

1. Provide monthly crop yield forecast reports for the following country/crop combinations, the three primary states (provinces) for the production of the crop will be modeled in each defined country/crop combinations listed below:

a. Brazil/Soybean
b. Argentina/Soybean
c. Argentina/Corn
d. India/Wheat
e. Australia/Rapeseed

In the event that the above country/crop reports cannot be delivered on the basis of technical limitations or otherwise, substitute country/crop reports will be requested.

The predicted yield values shall be provided using statistical values, including but not limited to, point estimate, range (confidence interval), standard error, and RSME.

2. Produce spatial data that can depicted on a map showing forecast yields spatial variation across crop districts and regions.

3. Provide a brief context discussion delivered with the model forecast, including a write up on how to interpret and use the model predictions, as well as how the wetness and temperature anomalies are used to detect the deviation from the expected value.

Task 6: Monthly Status Report

The contractor shall document all products and time delivered to FAS IPAD. The monthly status report shall include, at a minimum, a detailed progress report of all imagery collected and delivered for the monthly period.

Deliverable: Shall be delivered by the 1oth of each of the following month.

Task 7: Final Report

The contractor sha11 provide a final report, to the COTR, at the conclusion of Period of Performance. The report will summarize all imagery delivered by week, month, and entire period of performance.

Deliverable: Shall be delivered by the 10^{th} of the month after the Period of Performance

Product License

The above products are for internal use for FASIIPAD only and not to be distributed. All data and maps, and any derivatives thereof, will be kept within the FAS/IPAD group and its computing infrastructure. No data, maps, or derivatives thereof will be published without written permission of the contractor. The potential contractor agrees that information from this Product may be demonstrated in USDA lock-up proceedings.

*The contract can be terminated if a required weekly or monthly SSM/I product or deliverable is delivered two-weeks late.

Surface Wetness Products and Crop Yield Forecasts
Derived From Passive Microwave Satellite Imagery

03.27.2018

Section C- Performance Work Statement (PWS) Base Year (Option 4)

C.1 Surface Wetness Product Background

Surface wetness products are derived from passive microwave satellite imagery, which provides an essential time-series data stream for monitoring global crop conditions for the United Stated Department of Agriculture's (USDA), Foreign Agricultural Service (FAS), Office of Global Analysis (OGA), International Production Assessment Division (IPAD). The surface wetness product is required by FAS/IPAD for monitoring global crop conditions because it is considered a critical global data product similar to collecting and utilizing ground weather station data for monitoring crop conditions.

The FAS/IPAD began using satellite-derived surface wetness products to monitor crop conditions in 2001, when the surface wetness products became readily available from the National Oceanic and Atmospheric Administration (NOAA). Unfortunately, the operational delivery of the surface wetness product was discontinued by NOAA around 2003, but the private sector later produced and distributed this product as a consistent time series data set with scientific merit in monitoring global crop conditions.

Surface wetness products are derived from passive microwave imagery measured by the Special Sensor Microwave Imager (SSMI) and these products are processed independent of ground weather station data, unlike the processing of most satellite-derived precipitation products. Surface wetness products also have global coverage and its 30-kilometer spatial resolution tends to have better spatial resolution than any global ground station network.

Crop yield forecast models have been recently developed for several commodity/country combinations and these crop yield results are derived from regression analysis between SSMI derived products (i.e., surface wetness and land surface temperature) and historical crop yield data obtained from various national governments. The monthly yield forecasts are delivered on the last Monday of each month so that IPAD crop analysts have the crop yield results to present at their monthly crop production lockup meetings at the beginning of the month.

US Government Organizational Background

The United States Department of Agriculture's (USDA), Foreign Agricultural Service, International Production Assessment Division (FAS/IPAD) strategic mission and mandate is to produce the most objective and accurate assessment of the global agricultural production outlook, and the conditions affecting food security in the world. The FAS/IPAD utilizes remote sensing analyses to provide timely, relevant and strategic imagery intelligence and geospatial information in support of the USDA/FAS marketing and export credit decisions, as well as promote international trade. Early warning of unusual crop conditions or changes in production outlook detected by satellite imagery helps to provide an informed edge in commodity trading and helps to maximize U.S. farmer returns. The FAS/IPAD has implemented this operational crop monitoring program from USDA's Headquarters in Washington, DC since 1992. This function is congressionally mandated by the Code of Federal Regulations, Title 7 Agriculture, Volume 1 7 CFR 2.43(3).

C.2 Objective

The purpose of the contract is to acquire surface wetness and crop yield forecast products derived from passive microwave satellite imagery from the SSMI sensor. These surface wetness/SSMI products are required by FAS/IPAD to assist IPAD crop analysts with the necessary time series data to make objective and accurate assessments of the global agricultural production outlook and the conditions affecting global food security. The ultimate goal of the contract is to deliver surface wetness and crop yield forecast products efficiently and effectively in an operational environment, where near real-time delivery is critical to the FAS/IPAD mission.

C.3 Scope of Work

The scope of work is to deliver (a) weekly and monthly global surface wetness, snow cover and temperature anomaly spatial products derived from the Special Sensor Microwave Imager (SSM/I) satellite constellation, and (b) monthly global crop yield forecast reports. The global satellite-derived spatial products require delivery to FAS/IPAD on Monday morning of each week, with continental maps in jpeg format or other formats as deemed appropriate and global data sets in CSV and Land Information System (LIS) formats. The contract may be terminated any time during the Period of Performance (POP), if a required weekly or monthly product is delivered two-weeks late.

C.4 Tasks

The following are the task requirements:

Task 1: Weekly and Monthly Surface Wetness, Snow Cover and Temperature anomaly Maps

The FAS/IPAD requires the contractor to deliver weekly and monthly global surface wetness, snow cover and temperature anomaly spatial products derived from the Special Sensor Microwave Imager (SSM/I) satellite constellation.

Task 2: Monthly Global Crop Yield Forecast Reports

The FAS/IPAD requires the contractor to deliver crop yield forecasts derived and/or modeled from the SSMI derived products and delivered on monthly basis. The acquisition and delivery of monthly yield forecasts should provide reliable and advanced forecast as the crop advances through the various stages: vegetative, reproduction, grain or pod-filling, and maturity.

The satellite derived surface observations over the target region should provide monthly yield forecasts across several spatial scales including national, states, provinces, oblasts and countries, for the select crops such as soybeans, corn, cotton, wheat, and rapeseed. Forecasts will be made on the agreed upon scale, with the likelihood that they will be calibrated at a scale comparable in size to the U.S. crop districts.

Base Year (Option Exercise) Deliverable:

1. Provide monthly crop yield forecast reports for the following seventeen country/crop combinations:

1. China/corn
2. Ukraine corn
3. Ukraine/sunflower seed
4. Ukraine/wheat
5. Russia/corn
6. Russia/sunflower seed
7. Australia/sorghum
8. Australia wheat

In addition, three primary crop production states (provinces) will be modeled in each of the country/crop combinations listed above. In the event that the above country/crop reports cannot be delivered on the basis of technical limitations, information availability, or otherwise, substitute country/crop reports will be requested. The predicted yield values shall be provided using statistical values, including but not limited to, point estimate, range (confidence interval), standard error, and RSME.

Task 3. **Produce and deliver spatial maps** showing forecast yields spatial variation across crop districts/provinces and regions.

> **Deliverable Schedule:** All spatial maps deliverables should be delivered on the last Monday of each month so that IPAD crop analysts have the crop yield results to present at their monthly crop production lockup meetings.

Task 4. **Provide a brief context discussion** delivered with the model forecast, including a write up on how to interpret and use the model predictions, as well as how the wetness and temperature anomalies were used to detect the deviation from the expected value.

> **Deliverable Schedule:** All the summary context discussion deliverables should be delivered on the last Monday of each month so that IPAD crop analysts have the crop yield results to present at their monthly crop production lockup meetings.

Task 5: Monthly Status Report

The contractor shall document the time each of the above monthly products were delivered to FAS/IPAD. At a minimum, the monthly status report shall include a detailed progress report of the yield calibration reports, limitations, areas of special attention, and proposed actions for improvements (where necessary).

> **Deliverable:** The Monthly Status Report should be delivered by the 10th of the month following the reported month.

Task 6: Final Annual Report

The contractor shall provide a final Annual Report, to the COTR, at the conclusion of the annual Period of Performance (POP). The Annual Report will summarize all imagery delivered by week, month, and entire period of performance.

Deliverable: The final Annual Report should be delivered by the 10th of the month after the Period of Performance

C5. Product License

The above products are for internal use for FAS/IPAD only and not to be distributed. All data and maps, and any derivatives thereof, will be kept within the FAS/IPAD group and its computing infrastructure. No data, maps, or derivatives thereof will be published without written permission of the contractor. The potential contractor agrees that information from this product may be presented in USDA lock-up proceedings.

C6. Performance Period Schedule:

The Period of Performance (POP) for the contract is from May 3, 2018 - May 2, 2019.

C7. Place of Performance:

All work will be performed at contractor location.

C.8 Deliverable Delivery

USDA/FAS/OGA/IPAD
1400 Independence Ave, SW, MS-1051
Room Number 4648
Washington, DC 20250

C.9 Preference for Bio-Based Products

The Contractor must comply with the Farm Security and Rural Investment Act of 2002 (FSRIA), 7 U.S.C. 8102; the Food, Conservation and Energy Act of 2008 (FCEA), 7 U.S.C. 8102; the Federal Acquisition Regulation; Executive Order (EO) 13514, "*Federal Leadership in Environmental, Energy and Economic Performance*," dated October 5, 2009; EO 13423, "*Strengthening Federal Environmental, Energy, and Transportation Management,*" dated January 24, 2007; and Presidential Memorandum, "*Driving Innovation and Creating Jobs in Rural America through Biobased and Sustainable Product Procurement,*" dated February, 2012 to provide bio-based products.