Truth in Testimony Disclosure Form

In accordance with Rule XI, clause 2(g)(5)*, of the *Rules of the House of Representatives*, witnesses are asked to disclose the following information. Please complete this form electronically by filling in the provided blanks.

Committee: Agriculture

Subcommittee: Livestock and Foreign Agriculture

Hearing Date: November 14, 2019

Hearing Title :

Safeguarding American Agriculture from Wild, Invasive, and Non-Native Species

Witness Name: Kurt S. Reichert

Position/Title: Director of Fumigation

Witness Type: ○ Governmental ● Non-governmental

Are you representing yourself or an organization? ○ Self ● Organization

If you are representing an organization, please list what entity or entities you are representing:

Western Industries-North, LLC; d/b/a Western Fumigation

If you are a non-governmental witness, please list any federal grants or contracts (including subgrants or subcontracts) related to the hearing's subject matter that you or the organization(s) you represent at this hearing received in the current calendar year and previous two calendar years. Include the source and amount of each grant or contract. *If necessary, attach additional sheet(s) to provide more information.* **House Rules do NOT require disclosure of federal payments to individuals, such as farm program payments or assistance to agricultural producers.**

United States Department of Agriculture / Agricultural Research Service Research Agreement # 58-2034-7-019. This is a Cooperative Research and Development Agreement (CRADA) for the purpose of limiting atmospheric emissions following postharvest methyl bromide fumigation. Western Fumigation paid ARS $15,000 to partially offset the costs to USDA/ARS of $21,000. Documents attached.

If you are a non-governmental witness, please list any contracts or payments originating with a foreign government and related to the hearing's subject matter that you or the organization(s) you represent at this hearing received in the current year and previous two calendar years. Include the amount and country of origin of each contract or payment. *If necessary, attach additional sheet(s) to provide more information.*

None

UNITED STATES DEPARTMENT OF AGRICULTURE **RESEARCH AGREEMENT**	TYPE OF RESEARCH AGREEMENT Cooperative Research and Development Agreement	
	AGREEMENT NO. 58-2034-7-019	TYPE OF ACTION New
AGENCY (Name and Address) Agricultural Research Service 1400 Independence Avenue SW Washington, D.C. 20250-0302	PERIOD OF AGREEMENT April 1, 2017 through March 31, 2018 *	
	FEDERAL OBLIGATION $ 0	CHANGE IN FEDERAL OBLIGATION

This Agreement is authorized by the Federal Technology Transfer Act, and 15 USC 3710a, *et seq.*, and is governed by its terms.

Items	Descriptions
1. Technology Transfer Coordinator	David Nicholson
2. Cooperator	Western Industies - North, LLC dba Western Fumigation 800 Lanidex Plaza, Suite 200 Parisippany, NJ 07054
3. Cooperator	Miriam Borja-Fisher
4. USDA Laboratory	San Joaquin Valley Agricultural Sciences Center Commodity Protection and Quality Research 9611 S. Riverbend Ave. Parlier, CA 93648
5. Principal Investigator (PI)	Spencer Walse
6. National Program Leader & Area	Kevin Hackett, NP 304
7. Accounting Code	X91-XXXX-XXX **(To be filled out by OTT HQ in Beltsville)**
8. Amount	$15,000.00
9. Finance Office	Budget & Fiscal Office 800 Buchanan Street Albany, CA 94707 Attn. David Ford
10. Project No.	2034-43000-040-00D
11. Title of Project (CRADA Title)	Limiting atmospheric emissions following postharvest methyl bromide fumigation
12. Log # (Incoming Agreement Log #)	60761

Incorporated into this Agreement are the Following:

1. Articles
2. Schedule 1 - Certifications
3. Schedule 2 – Statement of Work
4. Schedule 3 – Estimated Budget

* May be extended on an annual basis by mutual agreement of the Parties.

FOR THE UNITED STATES DEPARTMENT OF AGRICULTURE

SIGNATURE	TYPED NAME AND TITLE
	ROBERT J. GRIESBACH **Deputy Assistant Administrator**

FOR THE COOPERATOR

(Signature of person(s) authorized by the governing body of the COOPERATOR to incur contractual obligations)

SIGNATURE	TYPED NAME AND TITLE
	MIRIAM BORJA-FISHER **Sr. Business Development Manager**

OTT COVER FORM

SCHEDULE 2
STATEMENT OF WORK

A. Background

The problem of losses due to insect and microbiological pests does not end in the field or with the harvest. The problem persists into the storage phase where the value of raw commodities is reduced by direct damage, thus the detection and elimination of insect and microbiological pests must be accomplished to ensure not only the retention of maximum value of the crop but also to permit the safe movement of agricultural commodities from infested and/or infected areas to those that are not. In addition, stored grains like corn, wheat, and rice as well as nuts and fruits are processed into value-added products that are susceptible to insect attack. Effective and sound management strategies directed at reducing pest damage in post-harvest commodities are directly dependent on research outcomes. Furthermore, this research generally operates to limit the spread of exotic pests within the United States, thus ensuring our competitiveness in international commerce. Traditionally, post-harvest pest control has be achieved predominantly through use of methyl bromide and other fumigants. However, the use of fumigants has been greatly reduced because of links to adverse impacts on human and environmental health. Thus, effective alternatives to post-harvest fumigants are needed.

The overall goal of Dr. Walse's research is to ensure the protection and quality of foodstuffs in global distribution channels. The results of this research directly enhance production, distribution, and safety of foodstuffs, promote and retain access of United States-grown crops to domestic and foreign markets, and protect the United States and trading partners from the agricultural, ecological and economic threat posed by quarantine and invasive pests. In general, Dr. Walse develops chemical and non-chemical techniques to rapidly disinfest raw products of field pests, control storage pests in processed products amenable to re-infestation and microbial infection, reduce reliance on fumigation as a stand-alone measure for post-harvest disinfestations and disinfections, and minimize the environmental and ecological impact of post-harvest processing. Research objectives include: 1) comparative evaluation of alternative fumigants to methyl bromide in post-harvest applications, 2) development of novel technologies to reduce and eliminate atmospheric emissions from post-harvest fumigation 3) design production strategies that reduce post-harvest use of methyl bromide and alternative fumigants, and 4) enumeration of critical commodity-, pest-, and treatment-specific effects on post-harvest processes that enhance the competitiveness of United States agriculture. The research involves a multidisciplinary approach to the development and integration of predictive chemical kinetics, modeling strategies, and *in situ* results as they relate to quantitatively understanding how the biological activity of molecules is affected by interaction with surrounding environments. This expertise is applied in CRIS project 2034-43000-040-00D. In particular, Dr. Walse has characterized key physicochemical features of post-harvest treatments as well as developed key systems to remove post-harvest fumigants from effluent before venting to atmosphere, all of which will be transferred through this CRADA.

Western Fumigation provides a critical fumigation service for commodities imported into the US as well as exports to international markets. The central elements of their strategy for sustained value creation are profitable growth, efficiency and values. They concentrate on high-value markets including health, nutrition, resource efficiency and globalization. Specifically within the agricultural sector, Western and its associated companies provide pest control and fumigation treatments to meet quarantine and pre-shipment requirements for inbound and outbound commodities. They have specialized expertise in commercial settings across the globe.

Together, ARS scientists and researchers at Western Fumigation intend to combine their resources and expertise to permit Western Fumigation to optimize and commercialize the post-harvest treatment technologies already developed by Dr. Walse, having the effect of transferring ARS technology from the laboratory into the economy for broad, beneficial public use.

B. Objectives

The ultimate goal of this project is to enhance the competitiveness of US agriculture via development of efficient, economical, and environmentally responsible strategies to retain key US imports and exports jeopardized by local and state environmental regulations. The research will focus on the optimization of existing and development of novel technologies to reduce and eliminate atmospheric emissions from post-harvest fumigation. The new technologies developed in this collaboration will be transferred to interested commercial users, such as Western Fumigation, and government action agencies.

C. Approach and Methodology

The research will involve a multipronged approach and is outlined below.

Specific Aim 1) At the laboratory-scale, optimize dual-stage liquid-air scrubbing strategies for the removal of methyl bromide in effluent from chambers and/or tarpaulins.

Specific Aim 2) Transfer results of the laboratory-scale research to Western Fumigation and tailor technology to import scenarios involving fresh fruit (New Jersey) as well as export scenarios involving logs (Virginia) and agricultural equipment (Pennsylvania and Maryland).

Specific Aim 3) At the commercial-scale, evaluate and optimize dual-stage liquid-air scrubbing strategies for the removal of methyl bromide in effluent from chambers and/or tarpaulins.

Specific examples of commercial methods/operations/products that will be utilized or further developed:

Import fumigation of Chilean table grapes at Gloucester Terminal, New Jersey, Western Fumigation. Local air quality authorities have demanded emissions reductions and research will be conducted toward this end.

Export fumigation of US logs at, Virginia, Western Fumigation. Western Fumigation wishes to proactively address emissions reduction regulation from local air quality authorities and research will be conducted toward this end.

Novel technologies for emission reduction will be developed utilizing:

Tricaprylylmethylammonium chloride, and Duall Air and Water Technologies F103-18S Packed Bed Scrubber

D. ARS' Responsibilities

Using technical support provided by Western Fumigation, ARS will:

1. Direct & Conduct research for specific aim 1, 2, &3.
2. Support Western Fumigation research for specific aim 3.
3. Co-direct research with Western Fumigation for specific aim 3.

E. Western Fumigation Responsibilities

In order to achieve the above objectives, Western Fumigation will:

1. Support ARS research for specific aim 1, 2.
2. Co-Direct and conduct research for specific aim 3.
3. Pay ARS $15k for an initial one year study.

4. Payment of $15k is due within 90 calendar days of the last signature of this Agreement. Please make checks payable in U.S. dollars to ARS, cite this Agreement number thereon, and send to:

Budget and Fiscal Office
UDSA/ARS/PWA
800 Buchanan St.
Albany, CA 94710
Attn. David Ford

F. Joint Responsibilities

In order to achieve the above objectives, ARS and Western Fumigation will jointly:

1. Analyze, evaluate and interpret the results of the above research studies.
2. Work toward implementing on a commercial level the results of this research.
3. Share infrastructure and resource as related to the research outlined above.

SCHEDULE 3
ESTIMATED BUDGET

TOTAL YEARS: 1

Year 1

	ARS Receive Funds for	ARS In-House	Western Fumigation
A. Salaries and Wages	0	10,000	157,095
B. Equipment		2,000	381,656
C. Materials and Supplies	1,000	2,000	19,884
D. Travel 1. Domestic 2. Foreign	11,000		3,750
E. Facilities		7,000	0
F. Other Direct Costs			10,000
G. TOTAL DIRECT COSTS	12,000		572,385
H. Indirect Costs (25% of G)	3,000		
I. TOTAL COSTS ……..$	15,000	21,000	572,385