

Fumigation

U P D A T E



Photo credit: Dr. Rudolf Scheffrahn

PLANNING, LOGISTICS KEY TO SUCCESSFUL MULTIUNIT RESIDENTIAL STRUCTURE FUMIGATION

In theory, fumigating a multiunit residential structure versus a single residence with Vikane® gas fumigant is similar — both require following the same label directions. The main difference when fumigating a multiunit residential structure, such as an apartment building or condominium complex, is the extensive planning and attention to detail required from the earliest stages to help ensure success.

“Physically, conducting a multiunit fumigation is no different than for a single structure,” says Jeff Edwards, president of Dead Bug Edwards, based in Fort Lauderdale, Fla. “Logistically, however, fumigating a multiunit structure is far more complicated and requires a lot of planning.”

Following are suggestions that will help you conduct successful fumigations of multiunit residential structures with Vikane.

Customer communication

Communication is a critical aspect of multiunit residential structure fumigations; instead of coordinating with one homeowner, you may be communicating with residents in 50 or more units. Initial contact needs to be made with everyone involved prior to the fumigation, including the property owner and building

residents, to inform them of the steps they need to take before, during and after the fumigation. If a management company operates the structure, Edwards recommends working with it in tandem to help facilitate communication with residents.

“Management companies serve as great mediators between fumigators and tenants, helping to distribute communication materials, set up meetings and obtain keys to each unit,” Edwards says. “It can be challenging when everyone owns their own unit and there is no single point of contact.”

Provide written instructions to the property owner outlining structure preparation responsibilities. Supply to a resident of each occupied unit the Property Owner’s Checklist and any other relevant information regarding proper preparation for each unit. Dead Bug Edwards provides building management and residents with a specification sheet, listing all parties’ responsibilities in preparing for a fumigation and requires this document to be signed by at least one resident in each occupied unit.

“The specification sheet provides a waiver of liability for the fumigator and

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Superior Support.**

informs the homeowner exactly what is required in terms of preparing his or her dwelling for fumigation,” Edwards adds.

The structure

Evaluate the structure well in advance of the fumigation. Begin by gathering information such as the floor plan and number of units/residents in the building. It’s a good idea to meet with maintenance staff and conduct a walk-through inspection prior to fumigation to familiarize yourself with the layout and makeup of the structure. A walk-through also can help you identify any potential problem areas or special fumigation needs such as with connected structures.

Make arrangements for maintenance staff personnel to be on-site or available via telephone throughout the fumigation process, including aeration, for consultation in case of an emergency.

Everything you need

Graph the structure to determine sites for fan placement, monitoring hoses, and release of chloropicrin and Vikane. This will help determine the number of fans and the number and length of fumigant introduction hoses and monitoring hoses needed. Monitoring multiunit residential fumigations is recommended to ensure sufficient dosage has accumulated to control the target pests and prevent a redo.

Additional time and labor are usually required for these large jobs. Consider pooling employees from other branches or subcontracting with other companies. Establish work crews ahead of time and assign each team specific tasks.

More equipment than usual also is necessary. Check the availability of sufficient equipment, such as fans, tarps, chloropicrin pans, secondary locks, warning signs, extension cords, power strips, etc. Secure any other specialized

equipment that may be required, such as cranes, C-clamps and ropes for tarping, voice-activated radio headsets, manifolds for fumigant introduction, manifolds and vacuum pumps for monitoring, and remote-controlled fans.

Safety first

Work with the property manager to make additional safety arrangements (security guards, barricades, warning tape, etc.) to limit pedestrian traffic near a fumigated structure. Edwards recommends hiring a security guard



when the dwellings and belongings of dozens of people are involved, as in a multiunit residential structure fumigation.

“Round-the-clock security gives tenants the peace of mind that their homes are being monitored during the fumigation, and the extra expense can be well worth it,” Edwards adds.

Thoroughly inspect each unit and, as a best practice, lock each entrance door as you leave. It may be necessary, based on state laws such as those in Florida, to use secondary locks on the entrance door(s) to each inspected unit to prevent re-entry by residents while you prepare other units for fumigation. These secondary locks could be removed immediately prior to chloropicrin introduction for a building with internal hallways and stairways if exterior entrances are then secured by secondary locking devices or barricades.

Ensuring success

Large or multiunit residential structure fumigation jobs require a great deal of planning and preparation. By paying close attention to all the details in the planning stage, fostering communication throughout the process, securing the right tools and coordinating the crew, you can help ensure that your fumigation is a success.

“It’s all about making sure everyone is on the same page,” Edwards says.

For more information on multiunit structural fumigation, see the *Structural Fumigation Manual* or contact your Dow AgroSciences account representative.



Photo credit: Dr. Rudolf Scheffrahn

STRUCTURAL FUMIGATION SCHOOL RECEIVES HIGH MARKS IN ITS 12TH YEAR

The 12th annual Structural Fumigation School was recently held at the University of California Cooperative Extension in Riverside, Calif. A total of 50 fumigation professionals from throughout the western United States attended the two-day educational symposium, presented by Target Specialty Products, in conjunction with the University of California-Riverside (UCR) and Dow AgroSciences.

Class topics covered the entire spectrum of structural fumigation, from basics like inspections and measuring structures to more complex topics like specialty projects and advanced dosage calculations using the Fumiguide™ calculator and the new chloropicrin dosage option. Instructors included Donald Reiersen and Dr. Michael Rust from the UCR Department of Entomology; Curtis Good of Newport Exterminating; and Irene Wallbaum and Stan Woodward from Dow AgroSciences.

Fun learning activities included an insect identification quiz and a field trip to observe an actual residential fumigation conducted by Lee Whitmore and his team from Beneficial Exterminating, Inc. During the on-site instruction, students viewed demonstrations of various tasks involved in conducting



Photo credit: Target Specialty Products

a whole-structure fumigation with Vikane® gas fumigant.

The fumigation school closed with a spirited panel discussion about regulatory issues, moderated by Gary Maxwell, vice president of Regulatory Affairs for Target Specialty Products.

Mark Maxwell, president of Key Termite and Pest

Control, Inc., headquartered in Atascadero, Calif., has attended the UCR fumigation school several times and learns something new each time.

“The industry is always evolving, and each year, the UC-Riverside fumigation school provides new scientific and technical information that helps us conduct fumigations more efficiently and successfully,” Maxwell said. “It’s great for the industry that we have this worthwhile program.”



Photo credit: Target Specialty Products

Proceeds from the fumigation school are donated back to the UCR Urban Entomology Fund. This year, \$3,000 was presented to the fund. Over the past 12 years, \$27,000 has been raised.

“Target Specialty Products is honored to support the industry by providing continuing education to both new and veteran fumigators,” said Dean Osborn, fumigation business manager for Target Specialty Products. “We appreciate the support of Dow AgroSciences and the stewardship it provides to the industry. We couldn’t do this program without it.”

Fumigators agreed. “The kind of industry involvement that both Target and Dow AgroSciences display makes it easy for me to choose to do business with them,” Maxwell added. “It’s nice to know you have people you can count on.”

For more information about the California fumigation school, contact your Dow AgroSciences account representative.

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PROMOTE YOUR COMPANY'S WEB SITE THROUGH SEARCH ENGINE MARKETING

Search engine marketing (SEM) is a powerful Internet marketing tool to increase Web site visibility through search engines like Yahoo! and Google. It can be a very effective way to drive more traffic to your company's Web site. Its use is growing rapidly; in 2006, advertisers in North America spent \$9.4 billion on SEM, a 62 percent increase over 2005 and a 750 percent increase over 2002.¹ As of just two years ago, SEM was growing faster than traditional advertising like newspaper and television.²

A commonly used SEM technique is pay-per-click (PPC) advertising, where companies "bid" to pay a specific dollar amount for the highest position on a search engine, based on specific search terms chosen by the company. The search terms are normally keywords that the company feels Internet users commonly type into search engines when researching products or services. An example of this can be seen by typing a search term like "sulfuryl fluoride" into Google's search engine and viewing the "sponsored links" section. Those are advertisers that are conducting SEM campaigns.

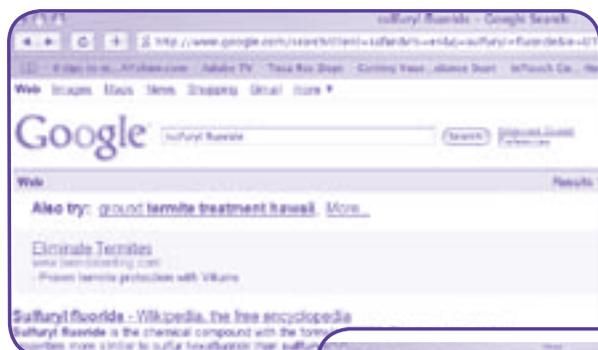
If you want to get top placement for your Web site on Google's search engine, you would bid an amount of money per keyword (e.g., \$0.11 for "fumigation"). Then, whenever someone types the word "fumigation" into Google's search engine and clicks on your Web site, you pay \$0.11 for that

click. The actual cost for this varies by demand or bids. To limit your costs, you can budget a certain amount to spend each day, week or month. Once your budget cap is met, your keywords are turned off.

Dow AgroSciences is working to promote the effectiveness of whole-structure fumigation with Vikane® gas fumigant — and your expertise — by running an SEM campaign with the two top search engines on the Internet: Yahoo! and Google.

By bidding on various keywords, Dow AgroSciences hopes homeowners searching for information on fumigation will visit www.termitetenting.com, and then contact companies that use Vikane to eliminate drywood termite problems. The ultimate goal is to urge potential prospects to contact you first.

If you are interested in learning more about SEM or conducting your own campaign, contact your Dow AgroSciences account representative for more information.



¹"The State of Search Engine Marketing 2006," *Search Engine Land*, Feb. 8, 2007.

²"More Agencies Investing in Marketing with a Click," *New York Times*, March 14, 2006.

BACK TO THE BASICS

SECURING A FUMIGATION SITE: SECONDARY LOCKS AND WARNING SIGNS

By Ellen Thoms, Senior Research Biologist/Product Technology Specialist

Fumigators have many responsibilities, but when it comes to fumigating a structure with Vikane® gas fumigant, safety is key. Secondary locks and warning signs help fumigators meet that responsibility by protecting their customers, and providing secure and effective fumigations.

Secondary locks

The label for Vikane requires the securing of all exterior entrances to a fumigated site by using a locking device or barricade that is “demonstratively effective in preventing an exterior door or doorway from being opened using normal opening or entering processes by anyone other than the certified applicator in charge of the fumigation or persons in his/her on-site direct supervision.” Not appropriately securing all exterior entrances during the fumigation exposure period and Step 2 of the aeration period for Vikane is one of the most cited label violations by structural pest control regulators. The label for Vikane also states that fumigators should consult state and local regulations for any additional supplementary instructions or restrictions.



Common secondary locks include Clamshell locks, Key-way locks, J-SAFE locks, cables and padlocks. Not all exterior entrances need a secondary lock to be considered secured per label requirements. An exterior door may be locked using an existing lock, such as an interior, sliding bolt lock, or barricaded from the inside, such as using security bars and pins for sliding glass doors, to prevent the door from being opened “by normal means” from the outside.

A fumigator must have access to the owner’s or occupant’s

keys when using secondary locks or barricades because many of these devices work in combination with existing locking mechanisms to secure the entrance. The fumigator must be able to enter the property to conduct aeration procedures properly and respond in case of an emergency.

Warning signs

Clearly marked warning signs must be posted on all entrances of a structure during the exposure and aeration periods of a fumigation to inform occupants, neighbors and passersby that the structure is under fumigation. Signs should be securely affixed to the structure. Only a certified applicator may authorize the removal of placards, and only when the concentration of Vikane in the breathing zones of the treated site is 1 ppm or less with an approved clearance device.

Warning sign content and format is mandated by the label for Vikane® gas fumigant and laws in many states. The label for Vikane states that “the applicator must post all entrances to the fumigated areas with signs bearing, in English and Spanish:

- “1. The signal word DANGER/PELIGRO and the SKULL and CROSSBONES symbol;
- 2. The statement, ‘Area under fumigation, DO NOT ENTER/ NO ENTRE.’;
- 3. The date of fumigation;
- 4. Name of fumigant used — Vikane gas fumigant; and
- 5. Name and address, and telephone number of the applicator.

Dow AgroSciences recommends a 24-hour telephone number — operational seven days a week — be written on each warning sign.”

Some states have additional specifications for warning signs, such as that the certified operator or licensed applicator applying the fumigant must be available to respond to emergency phone calls regarding the fumigation. State rules also may specify that signs should be made of weather-resistant material and must be visible from any approach to the structure. Be sure to check with local and state regulatory agencies regarding additional requirements for warning signs.

For more information on secondary locks and warning signs, check your state regulations or the *Structural Fumigation Manual* or contact your Dow AgroSciences account representative.

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REGRESANDO A LOS FUNDAMENTOS BASICOS:

ASEGURAR UN SITIO DE FUMIGACIÓN: CERROJOS SECUNDARIOS Y SEÑALES DE ADVERTENCIA

Por Ellen Thoms, Bióloga Investigadora Adjunta y Especialista en Tecnología de Productos

Los fumigadores tienen varias responsabilidades, pero cuando se trata de fumigar una estructura con el gas fumigante Vikane®, la seguridad es un factor clave. Los cerrojos secundarios y señales de advertencia ayudan a los fumigadores a cumplir con esa responsabilidad al proteger a sus clientes y proporcionar fumigaciones seguras y efectivas.

Cerrojos secundarios

La etiqueta de Vikane requiere que se aseguren todas las entradas exteriores de una estructura que esté siendo fumigada con un dispositivo de cierre o barricada que esté comprobado para impedir el ingreso normal de cualquier persona que no sea el aplicador certificado a cargo de la fumigación o personas bajo su supervisión directa en el sitio. El no asegurar correctamente todas las entradas exteriores durante el período de exposición de fumigación y el Paso 2 del período de aireación para Vikane es una de las violaciones más comunes a la etiqueta citadas por parte de reguladores de la industria de control de plagas. La etiqueta de Vikane también indica que los fumigadores deben consultar las normas locales y estatales para conocer cualquier instrucción o restricción adicional complementaria.

Algunos tipos de cerrojos secundarios comunes incluyen



candados tipo concha (clamshell), candados tipo llave (keyway), candados J-SAFE, cables con cerrojos y candados tradicionales. No todas las entradas exteriores necesitan un cerrojo secundario para ser consideradas seguras de acuerdo con los requisitos de la etiqueta. Una puerta exterior se puede cerrar con una cerradura existente, tal como un cerrojo corredizo interior, o se le puede colocar una barricada desde el interior, tal como barras de seguridad y pasadores en puertas de vidrio corredizas, para prevenir que la puerta se pueda abrir "por medios normales" desde afuera.

Un fumigador debe tener acceso a las llaves del dueño u

ocupante cuando se usen cerrojos secundarios o barricadas ya que varios de estos dispositivos funcionan en combinación con mecanismos de cierre existentes para asegurar la entrada. El fumigador debe poder entrar a la propiedad a fin de llevar a cabo los procedimientos de aireación en forma adecuada, así como responder en caso de una emergencia.

Señales de advertencia

Deben colocarse señales de advertencia marcadas claramente en todas las entradas de una estructura durante los períodos de exposición y aireación de una fumigación para informar a los ocupantes, vecinos y transeúntes de que la estructura está siendo fumigada. Las señales deben fijarse de un modo seguro a la estructura. Sólo un aplicador certificado puede autorizar el retiro de carteles y sólo cuando la concentración de Vikane en las zonas de respiración del sitio tratado es de 1 ppm o menos con un dispositivo de eliminación aprobado.

El contenido y formato de las señales de advertencia están regidos por la etiqueta del gas fumigante Vikane® y leyes de varios estados. La etiqueta de Vikane indica que "el aplicador debe colocar en todas las entradas a las áreas fumigadas, señales que contengan información, en inglés y español:

1. La palabra DANGER/PELIGRO y el símbolo de CALAVERA y DOS HUESOS;
2. La frase, 'Área bajo fumigación, DO NOT ENTER/ NO ENTRE.:';
3. La fecha de la fumigación;
4. Nombre del producto utilizado: Gas Fumigante Vikane, y
5. Nombre, dirección y teléfono del aplicador.

Dow AgroSciences recomienda que un número de teléfono de 24 horas, que funcione siete días a la semana, esté escrito en cada señal."

Algunos estados tienen especificaciones adicionales para las señales de advertencia, tal como que el operador certificado o aplicador autorizado que aplica el producto debe estar disponible para responder a llamadas de emergencia con respecto a la fumigación. Las reglas estatales también pueden especificar que las señales estén hechas de materiales resistentes al agua y que estén visibles desde cualquier ángulo en que se acerquen las personas a la estructura. Asegúrese de consultar las agencias normativas locales y estatales con respecto a requisitos adicionales para las señales de advertencia.

Para obtener más información sobre cerrojos secundarios y señales de advertencia, consulte sus normas estatales, *Structural Fumigation Manual* el (Manual de Fumigación de Estructuras) o comuníquese con su representante de ventas de Dow AgroSciences.

Dow AgroSciences Named Partner in Ozone Protection by U.S. EPA

The U.S. Environmental Protection Agency (EPA) has named Dow AgroSciences a partner in ozone protection. The agency's report, "Achievements in Stratospheric Ozone Protection," notes the important and substantial achievements

by people, programs and organizations in working to protect the earth's ozone layer. Dow AgroSciences and sulfuryl fluoride, the active ingredient in Vikane® gas fumigant was included under the category "new technologies in pest management."

Included with this issue of *Fumigation Update* is an important equipment update involving new valve types that will soon be appearing on cylinders of Vikane® gas fumigant, as well as a revised shipping manifest for your use. Aside from minor formatting and logistical changes, the most critical change is that fumigators must specify that the 800-number provided on the shipping manifest is an "emergency contact number," as mandated by the Department of Transportation. Please discontinue use of the current manifest provided to you by Dow AgroSciences and replace it with the enclosed updated version.

Vikane has been used to eliminate drywood termites and other wood-destroying pests for nearly 50 years and does not deplete the ozone layer. In 2002, Dow AgroSciences was the recipient of the Stratospheric Ozone Protection Award from the EPA.

"Dow AgroSciences is pleased to be recognized once again by the EPA for its commitment to environmental stewardship," says Dave Morris, commercial leader, U.S. Urban Pest Management, Dow AgroSciences. "For nearly half a century, Vikane has been eliminating drywood termite and other pest infestations while being environmentally responsible."

EQUIPMENT UPDATE: CHANGES TO VERIFICATION POLICY OF SF-EXPLORIR CALIBRATION

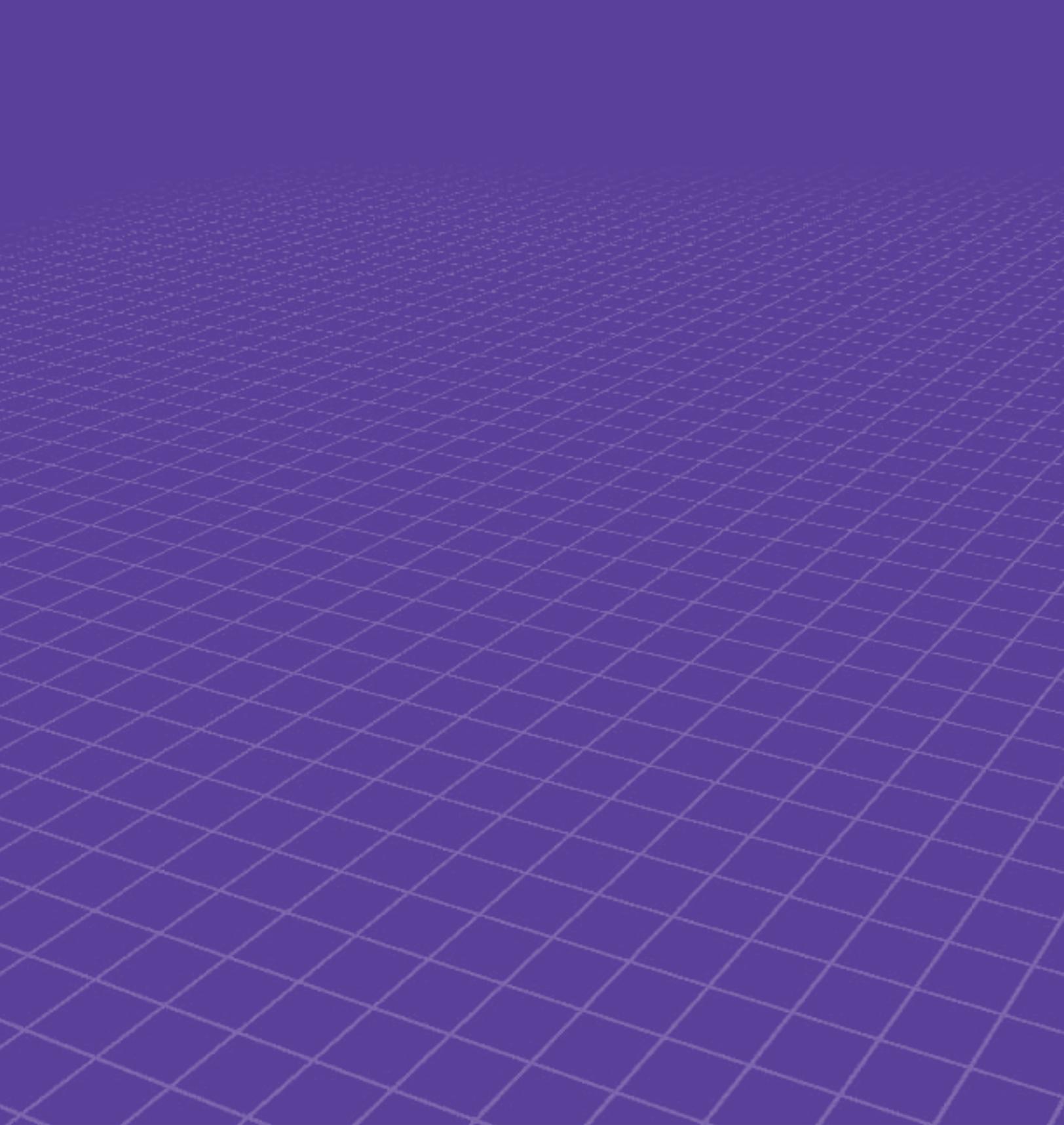
Spectros Instruments recently informed Dow AgroSciences of a change in its calibration verification policy for SF-ExplorIRs as follows:

"Regarding what constitutes a properly configured SF-ExplorIR for compliant clearance of sulfuryl fluoride at 1 ppm level — Only software versions 1.96 or higher are compliant. If the monitor does not have a V1.96 or higher then it is out of compliance for proper calibration verification and should be returned immediately for update.

"Only Spectros Instruments is authorized to perform the required six-month calibration service to assure proper performance of the SF-ExplorIR."

Contact Spectros Instruments at (508) 478-1648 or e-mail service@spectrosinstruments.com for specific information regarding the cost, service time and required paperwork and procedures if returning SF-ExplorIRs to Spectros.

As a reminder, other detectors — such as the Interscan gas analyzer — are approved for use with Vikane® gas fumigant and have sufficient sensitivity to measure 1 ppm. Please contact your local distributor of Vikane for assistance with purchasing and calibrating Interscan gas analyzers.



These materials have been created specifically for Vikane® gas fumigant and no other structural fumigant. The information contained in these materials is based upon the product label and use instructions for Vikane and are not intended for use with other structural fumigants, which will have different product label requirements. These materials may not be copied or reproduced, in whole or in part, without the permission of Dow AgroSciences.
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