the Savvy Grower's

ohp Partners with solutions

cutting edge

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OHP marks New Year with new products!

We greet a new year with a sense of optimism and wish our grower customers a successful 2009.

Despite the voices of many economic naysayers, we feel confident of the long-term health of our horticulture industry.

At OHP, our optimism is demonstrated in the form of adding new products and technology partners as we move into 2009.

We're introducing three new products in the first few months of 2009 with more to come. The reason? To provide more solutions for our valued ornamental growers.

If you're counting, that brings the number of OHP brands to upwards of 40, unmatched in the horticulture industry.

That demonstrates we are bullish on the future and we hope you are too as we head into a new year of opportunities for all!

To find out more about the new products -- Shuttle®O, Veranda™ O, and Kontos™ --please turn to page 3 of this newsletter.

**Shuttle is a registered trademark and Veranda is a trademark of Arysta Life Science North America Corp. Kontos is a trademark of Bayer Corp.*

Arysta partnership brings new products to OHP

We added yet another technology partner in 2008.

OHP and Arysta LifeScience North America Corp. signed an exclusive marketing partnership in July, 2008.

Under the terms of the partnership, OHP becomes the exclusive marketer of Veranda™ O Fungicide and Shuttle® O Miticide into the greenhouse and nursery markets.

In addition, OHP will be the exclusive marketer of future Arysta products introduced to the horticultural market, according to Dan Stahl, OHP vice president of marketing and business development.

Stahl notes the new partnership with Arysta, along with the 2007 marketing agreement with Chemtura Corp., further fortifies OHP's leading position in the production ornamentals market.

"We are thrilled that Arysta has chosen OHP as their exclusive marketing partner," says Stahl. "We continue to add quality products to our portfolio which are aimed exclusively at the only market we serve – the production ornamentals market."

Arysta will continue to be a strong player in its core markets, according to Michael Maravich, marketing and product manager. In addition to assuming marketing and sales functions, OHP will provide customer and technical service support for the selected Arysta greenhouse and nursery products.

As existing Arysta inventory is depleted, OHP will begin to manufacture under an OHP label in the OHP packaging format.

In this issue:

OHP technical staff redefines duties

As our product portfolio grows larger, so do our responsibilities.

The OHP technical staff has realigned duties to better suit both the needs of both OHP and the ornamental grower.

Most growers already know OHP Director of Technical Service Jeff Dobbs and Senior Technical Managers Dr. Richard Lindquist and Dave Barcel. They are regular attendees at industry meetings and functions.

"We feel our technical group, with over 80 years of collective horticulture experience, is second to none in our industry," says OHP Vice President and General Manager Terry Higgins.

(l. to r.) Dave Barcel, Dr. Richard Lindquist, and Jeff Dobbs

In their redefined roles, Dobbs will focus on OHP fungicides, Lindquist on insecticides, and Barcel on PGRs and herbicides.

Contact information for the "Ask The Experts" trio and contact info for the OHP sales staff, is listed on the back page of this newsletter.

With all the mite control products available, why are two-spotted spider mites still problems?

By Dr. Richard K. Lindquist, Senior Technical Manager, OHP, Inc

First, the good news: there now are many products registered for spider mite control on greenhouse and nursery ornamentals.

Two-spotted spider mite adults

If I counted correctly, there are at least 15 active ingredients in nine different mode of action groups registered for spider mite control on greenhouse and nursery ornamental plants. I am not counting some of the "fringe" products such as pyrethroid insecticides in this total.

In addition, several species of predatory mites are also used for spider mite control – often in combination with one or more of the registered miticides.

Given all this, there still are problems with mite control. The question is: why?

There are several possibilities. The following summary is not a complete listing, but does include some of the most important reasons.

Pesticide resistance

This usually is the first thought entering the mind when mite control is less than satisfactory, and, in fact, resistance is a good possibility but not necessarily the reason for lack of control.

Resistant mite populations are fairly common on long term perennial crops (e.g. roses, gerbera), or any situation in which the resident mites are exposed to products having the same – or similar – modes of action.

Use the OHP Chemical Class Chart to help with rotation of chemical classes

Pesticide resistance in mites is helped along by genetics. Female spider mites can reproduce with or without mating. If a female mite mates with a male, the offspring will usually be mostly females with a complete set of chromosomes, reducing the chances of resistance being dominant.

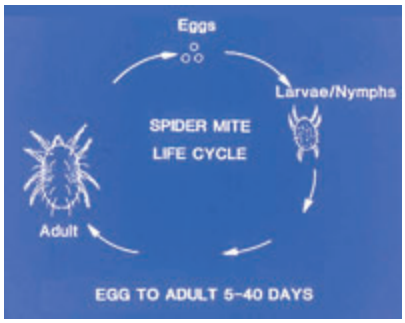
If she does not mate, she will still have offspring, but they will all be males with a single set of chromosomes. If the genes for resistance are present in the male mites, resistance will be dominant and more mites will survive.

In addition, when the resistant male mites do mate, the genes for resistance will transfer to the offspring. Basically what happens is that genes that confer resistance tend to become more concentrated in this way.

Biology and life cycle

Dr. Richard Lindquist

OK, we know that resistance is a possibility. Spider mites also have a very rapid egg to adult cycle when temperatures are high. Spider mites will develop at temperatures around 52° F (11° C), but the life cycle is long.



Mite development can vary depending on temperatures

When temperatures go up, the life cycle is reduced to 7-14 days, so numbers can increase rapidly if not controlled. This increases the number of generations in a given amount of time, probably requiring more pesticide applications and increasing the chances of resistant individuals being selected.

Application problems

Spider mites are tiny and generally live on undersides of leaves. This certainly makes spray coverage an issue. High-volume sprays seem to provide better control than low and ultra-low volume sprays.

Several products have translaminar activity (move within the treated leaves but not up or down the plants), including Avid®, Judo™, Pylon® and TetraSan®.

OHP's new product, Kontos™, has upward and downward systemic activity. Both translaminar and systemic activity can help overcome spray coverage problems, but will not substitute for thorough coverage of spider mite-infested areas.

Thorough coverage is needed for optimum miticide performance

Expecting the miticides to do it all

No matter how effective, no miticide, or miticide rotation program will be able to do a complete job of spider mite control.

Assistance in the form of a good scouting and monitoring program, minimizing the movement of workers from infested to non-infested areas, weed control, avoiding over fertilization, and integrating biological controls will help increase the effectiveness of a spider mite control program.

**Avid is a registered trademark of Syngenta. Judo is a trademark of OHP, Inc. Pylon is registered trademark of BASF Corp. TetraSan is a registered trademark of Valent USA Corp.*

Product Updates

OHP introduces Shuttle® O miticide to ornamental market

The OHP new product train keeps chugging down the tracks.

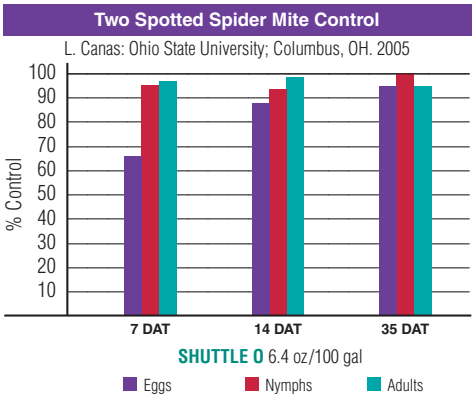
The latest product to come aboard is Shuttle O, a high-quality miticide for control of several key mite species.

Shuttle O came to OHP through a marketing partnership signed in July, 2008, with Arysta LifeScience.

"We are excited to be adding yet another quality miticide to our portfolio of products," notes OHP Vice President and General Manager Terry Higgins. "With the addition of Shuttle O to our line which already includes Floramite®, Pylon®, Judo™, and Triact®, we are by far the market leader in the mite control segment."

Shuttle O features several key features that fit well into an IPM program, including two-to-three day knockdown, Reduced Risk classification, activity on all life stages, long residual control, and a unique mode of action.

In addition, Shuttle O is soft on predator mites and beneficial insects.



Spray Volume: 100 GPA; Application Date: 8/24/2005; Evaluation: 8/31, 9/7, 9/28; DAT = Days after treatment

In laboratory tests, Shuttle O demonstrated long-term control of all life stages of two-spotted spider mites.

"With its many unique features, Shuttle O is a miticide for the future," says Dan Stahl, OHP vice president of marketing and business development. "The product fits nicely into any sustainable approach to pest control."

Shuttle O is effective on a wide range of mite species including two spotted spider mites, spruce spider mites, citrus red mites, European red mites, Pacific spider mites, and several others.

Shuttle O, with active ingredient acequinocyl, is the only member of Mode of Action (MOA) group #20B (electron transport inhibitors), which makes the product a great addition to any mite control rotational strategies.

Labeled for use both indoors and outdoors, Shuttle O has been tested on many plant species and has been shown to be safe on even tender plant material.

Shuttle O is a suspension concentrate (SC) formulation and carries a 12-hour Restricted Entry Interval (REI) and a Caution signal word.

For a Shuttle O specimen label or MSDS, please visit www.ohp.com or call your OHP regional representative at 800.356.4647.

**Shuttle is a registered trademark of Arysta LifeScience North America Corp. Floramite is a registered trademark of Chemtura. Pylon is a registered trademark of BASF Corp. Judo is a trademark of OHP. Triact is a registered trademark of Certis USA, LLC.*

Veranda™ O latest addition to OHP fungicide family

In keeping with the mantra of adding quality pest control products for the horticulture market, OHP is proud to announce the introduction of Veranda O, a unique fungicide for the grower.

Veranda O gives growers environmentally-friendly control of hard-to-control diseases such as alternaria blight, anthracnose, botrytis, downy mildew, fusarium, powdery mildew, and rhizoctonia root and crown rot.

Veranda O contains the active ingredient polyxin, a natural antibiotic and fermentation product of a soil bacterium.

"In addition to providing broad-spectrum control of many problematic diseases, Veranda O has an extremely favorable toxicological profile," notes Jeff Dobbs, OHP director of technical service. "It has no toxicity to land mammals, insects, or birds, and degrades rapidly – within two to three days — in the environment."

Veranda O is designated as a bio-pesticide by the U.S. EPA, adds Dobbs.

The product features a unique mode of action, preventive and curative activity, long-term residual control, and locally systemic activity.

As an easy-to-use water dispersible granule (WDG) formulation, Veranda O may be used in greenhouses, lath and shade houses, interiorscapes, and field and container nurseries.

In addition to ornamentals, Veranda O will soon be labeled for use on cucurbits, fruiting vegetables, pome fruits, and strawberries grown under cover.

Veranda O carries a 4-hour Restricted Entry Interval (REI) and a Caution signal word.

With the addition of Veranda O, OHP now features 13 fungicide brands in its family of products.

Veranda O, packaged in one-pound containers with four to a case, will be available in the first quarter of 2009.

**Veranda is a trademark of Arysta LifeScience North America Corp.*

OHP labels get new rinse and disposal directions

The Environmental Protection Agency (EPA) recently called for changes in the rinse and disposal directions on pesticide container labels with compliance required by Aug. 17, 2009.

OHP, and all registrants, are required to add the following to pesticide container labels:

- A statement identifying the container as refillable or nonrefillable and a reuse statement appropriate to that container;
- For nonrefillable containers, a recycling or reconditioning statement providing additional instructions for managing an empty container;
- For nonrefillable containers, a batch code;
- For some nonrefillable containers and all refillable containers, a statement providing cleaning instructions prior to container disposal;

Unless you read the container labels closely, you probably won't notice much of a difference.

However, it is important that growers follow the rinse and disposal directions on all pesticide container labels.

For more information, see EPA PR Notice 2007-4, Rinse and Disposal Statements.

Product Updates

OHP to introduce Kontos™, new systemic insecticide/miticide

The market leader is at it again! OHP is proud to announce the introduction of Kontos Insecticide/Miticide to the greenhouse and nursery markets.

Kontos is a new systemic insecticide that is both xylem and phloem active, meaning the active ingredient moves upward and downward in treated plants, according to Dr. Richard Lindquist, OHP senior technical manager.

"Kontos can be applied as a foliar spray or drench and controls a number of major sucking insect and mite pests, including aphids, leafhoppers, mealybugs, psyllids, spider mites, and whiteflies," notes Dr. Lindquist.

Kontos, with active ingredient spirotetramat, is the first systemic insecticide with activity on spider mites, adds Dr. Lindquist.

A member of the tetramic acid class (Mode of Action Group #23), Kontos is a lipid biosynthesis inhibitor and is active primarily through ingestion.

"Kontos is a unique product on a couple of levels," notes Dan Stahl, OHP vice president of marketing and business development.

"First, it is a systemic product that has activity on spider mites. That's a real plus for the grower," says Stahl.

"Second, it is a different class and mode of action than the neonicotinoid class, which has been widely and effectively used the last several years," says Stahl. "Kontos provides a rotational tool for those growers who have been using neonicotinoid drenches and want to change things up. It's a great alternative."

Kontos Insecticide/Miticide

The neonicotinoid class of products (MOA Group #4A) includes Marathon®, Safari®, Flagship®, and TriStar®.

Kontos is labeled for use on vegetable transplants and for use through irrigation systems, and is soft on many beneficial insects and mites, notes Stahl.

Kontos is a suspension concentrate (SC) formulation and is packaged in 250 mL bottles. Product will be available in the first quarter, 2009.

For a Kontos specimen label and MSDS, please visit www.ohp.com.

**Kontos is a trademark of Bayer. Marathon is a registered trademark of OHP, Inc. Safari is a registered trademark of Valent USA Corp. Flagship is a registered trademark of Syngenta. TriStar is a registered trademark of Nippon Soda Company LTD.*

Liquid Terrazole® to make debut in 2009

For years, growers have relied on OHP Terrazole Wettable Powder (WP) for reliable preventive and curative control of pythium.

With active ingredient etradiazole, Terrazole WP has become a major part of many disease control rotational strategies as growers have incorporated the product into their programs to treat mefenoxam-resistant pythium.

OHP plans to introduce a new Terrazole formulation — Terrazole L, an emulsifiable concentrate (EC) formulation — to the production ornamentals market in 2009.

Terrazole L is a liquid product which will give growers more flexibility and reduced residue. In addition, it will make mixing easier for the grower. Both formulations offer the same pythium curative characteristics.

"We expect to have the product available by mid-year," notes Dan Stahl, OHP vice president of marketing and business development.

"We feel a liquid Terrazole product will help growers from an ease-of-use perspective," adds Stahl. "Some growers prefer working with liquids but we will maintain the two Terrazole formulations."

Terrazole L will be packaged in quart bottles and carries a 12-hour Restricted Entry Interval (REI).

**Terrazole is a registered trademark of Chemtura Corp.*

Spring baskets mean it's Marathon® time

Savvy growers know that when it comes to control of spring insects in hanging baskets, it's time to turn to Marathon Insecticide.

Still unparalleled in control of aphids and other sucking insects, Marathon is available in three formulations to satisfy all growers.

As a drench, Marathon gives season-long protection against spring pests.

For information, visit www.ohp.com.

**Marathon is a registered trademark of OHP, Inc.*

Pylon, Pedestal giving good thrips control

Growers continue to seek options for thrips control as many established products aren't providing the level of control as in the past.

Pylon® Miticide/Insecticide and Pedestal® Insecticide from OHP are two of those options.

Pylon, originally introduced as a miticide, is now labeled for thrips and is providing good control of the greenhouse pest.

With active ingredient chlorfenapyr, Pylon is active against both larval and adult stages of thrips.

Pedestal®, an Insect Growth Regulator (IGR) with active ingredient novaluron, has demonstrated good control of immature stages of thrips as well.

As part of a thrips rotational strategy, Pylon and Pedestal are two additional tools in the never-ending fight against the troublesome pest.

Both products carry 12-hour REIs and "Caution" signal words and both are part of the OHP "Thrips Cocktail," written by OHP Senior Technical Manager Dr. Richard Lindquist and Director of Technical Service Jeff Dobbs.

For specimen labels and MSDS or a copy of the "Thrips Cocktail," consult www.ohp.com.

**Pylon is a registered trademark of BASF Corp. Pedestal is a registered trademark of of Makhteshim-Agan.*

PGR News

Have your PGR plans ready before the spring push

By Dave Barcel, Senior Technical Manager, OHP, Inc.

Many of you have spring crop seeds planted and/or will soon pot-up vegetative cuttings to begin rooting.

In a quick 6-to-8 weeks the crop is finished and out the door to sales. From start to finish sounds like a long time (12 weeks maybe more) but in reality it goes fast.

Now is the time to review your production notes from last year. Many of our spring crops benefit from one or more PGR applications, which can be used to control growth, tone up the crop or simply hold a crop over if poor sales weather exists.

There are several methods to consider when using PGRS.

Early media spray applications and plug and liner dips can provide early control of hypocotyl stretch of problematic plants like cosmos, marigold, snapdragon, salvia etc. Typically, growers use low rates of paclobutrazol (Paczol®) for dips – e.g. for salvia sp. use 1/2 to 1 PPM soak for 15 seconds.

Another technique is to apply PGR sprays or drenches about a week after transplant into the finish pot.

As an example for petunia, a general spray of Paczol sprayed at 15-30 PPM will finish the plant height nicely given a 6-to-8 week finish program.

Similarly, a Paczol drench at 2-4 PPM should work equally well. A handy tip for Paczol use is: Paczol sprayed at 10PPM is equal to about 1 PPM drenched.

For those of you not familiar with the use of the very active PGRs like Paczol, you may want to try B-Nine® or Cycocel® or even a tank mix of the two, which provides a greater PGR response.

Using the petunia example, B-Nine at 2500-5000 PPM, or Cycocel at 800-1250 PPM should provide good growth control to finish.

The combination of B-Nine and Cycocel at 2500 and 1250 PPM, respectively, would be 20-to-30 percent more active than the two applied separately.

Evaluate your PGR applications about two weeks after application. You should see darker green color forming, slower growth, etc. If activity is less than desired, then re-apply your PGR treatment at the initial rate.

Toning up the crop can be done with a 1/2 rate application two-to-three weeks from sale. This lower rate also helps hold size if weather is not conducive to sales.

These rate recommendations are general in nature; those in the north may use lower rates and those in the south will use higher rates. Please visit our website at www.ohp.com for further information on how to finish off your crop in tip-top condition.

**Paczol and B-Nine are registered trademarks of Chemtura Corp. Cycocel is a registered trademark of BASF Corp.*

OHP to showcase PGR effects at California Pack Trials

OHP will once again be a participant in the annual Pack Trials.

OHP Senior Technical Manager Dave Barcel has participated in Pack Trials at American Takii for 14 years, focusing on PGR effects and how different application techniques impact crop finishing characteristics.

This year, dates are March 28 - April 5. As usual, the location is along the coast of California.

This year, Barcel will be focusing on PGR effects on cut flowers and other American Takii varieties at their facility in Salinas, CA.

Meanwhile, OHP Senior Technical Manager Dr. Richard Lindquist will be present at the Gro-Link Southern California facility in Oxnard showing OHP PGR effects on Gro-Link varieties.

OHP invites growers who are in the area during the Pack Trials to stop and visit with our technical staff.

OHP is the leading marketer of PGRs in the production ornamentals market with B-Nine®, Cycocel®, and Paczol® in our product portfolio.

**B-Nine and Paczol are registered trademarks of Chemtura Corp. Cycocel is a registered trademark of BASF Corp.*

Dave Barcel at last year's Pack Trials (l.) and the American Takii trial area (r.)

Jason Miller

Dennis Kern

OHP realigns Western territory

We are changing some territorial responsibilities in the Western U.S. to better serve our grower and distributor needs.

Our Southern California sales manager Dennis Kern will now cover the entire state. Previously he covered the southern two-thirds of the state. He will no longer work the Utah market.

Jason Miller, our sales manager in the Pacific Northwest, has added Utah to his territory and no longer covers Northern California.

Consult the map on the back page of this newsletter for further information.

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