

2011

**Annual International Research
Conference on Methyl Bromide
Alternatives and Emissions Reductions**

*Sponsored by
Methyl Bromide Alternatives Outreach*

*In cooperation with
Crop Protection Coalition,
U S Environmental Protection Agency
And
U S Department of Agriculture*

PowerPoint Presentations on Web Site: <http://mbao.org/>

Office: Methyl Bromide Alternatives Outreach

**Gary L. Obenauf
6556 N. Dolores Ave.
Fresno, CA. 93711-1366
Tel: 559-449-9035
Fax: 559-449-9037
e-mail: gobenauf@agresearch.nu**










2011 Annual International Research Conference on Methyl Bromide
Alternatives and Emissions Reductions


Conference Proceedings





All Conference Papers are Fully Available in Adobe Portable
Document Format (PDF):





-  [Conference Cover Page](#)
-  [Title Page](#)
-  [Program Committee](#)
-  [Conference Objectives](#)
-  [Sponsor's Page](#)
-  [Moderator Instructions](#)
-  [Presenters](#)
-  [Conference Program](#)
-  [Win Zipped Total Proceedings](#)


-  [McKown, Clem \(1\) – Paladin® - Dimethyl Disulfide as a Replacement Soil Fumigant for Methyl Bromide.](#)


-  [Owens, Clay \(2\) – Paladin® U. S. Registration and UPI Paladin ® Soil Fumigation Program.](#)


-  [McAvoy, Theodore \(3\) – Retention and Efficacy of Drip Applied Dimethyl Disulfide under VIF and TIF Mulches.](#)


-  [Othman, Mona \(4\) – Dimethyl Disulfide Plus Chloropicrin as a Methyl Bromide Alternative for Strawberry Production.](#)

-  [Cabrera, J. Alfonsos \(5\) – Factors Affecting the Nematicides Activity of Dimethyl Disulfide.](#)

-  [Freeman, Josh \(6\) – Retention and Efficacy of Dimethyl Disulfide Under Virtually and Totally Impermeable Films.](#)

-  [Spadafora, V. J. \(7\) – Iodomethane \(Midas®\) Soil Fumigant Update – 2010.](#)

-  [Poss, Andrew J. \(8\) – MeI/HFC-245fa Azetrope: a Drop in Replacement for MeBr.](#)

-  [McAvoy, Theodore \(9\) – Retention and Efficacy if Methyl Iodide Under Virtually and Totally Impermeable Film.](#)

- [!\[\]\(6302aad5aed157b291fddf37b4870784_img.jpg\) **Burger, Greg J.** \(10\) – Crop Guard® as a Nematicide on Food Crops in South Africa.](#)
- [!\[\]\(a9ca2c237943a6d0a9f22252f295b6f3_img.jpg\) **Hensley, Jerry** \(11\) -- Multiguard Protect® EC Registration for Nematode Control in Turf.](#)
- [!\[\]\(9a01a64e0b4ff865df7d32ee7991fe8b_img.jpg\) **Gao, Suduan** \(12\) – Evaluation of TIF to Reduce Fumigant Emissions and the Potential to Use Reduced Rates.](#)
- [!\[\]\(6aefe9a3d997eb8b55c40ecd5fa7053f_img.jpg\) **Khan, Afiqu** \(13\) – Chloropicrin Emission Reduction by Using Totally Impermeable Film.](#)
- [!\[\]\(baa8f8ba8c970db55300f5bb45bb3460_img.jpg\) **Ajwa, H.** \(14\) – Chloropicrin and 1,3-Dichloropropene Emissions Reductions by Using Totally Impermeable Film.](#)
- [!\[\]\(a6e28495607b2299466d3d5d3193848c_img.jpg\) **Chow, Edgar** \(15\) – TIF Mulch Film – the Leading Fumigant Emission Tool.](#)
- [!\[\]\(ed205fcb6e75c95529564351570724d7_img.jpg\) **Noling, Joseph W.** \(16\) – VIF Mulches, Optimized Irrigation and Tillage Practices for Fumigant Use in Florida Strawberry.](#)
- [!\[\]\(27a992a1de9d3e89591e2e26256c5a71_img.jpg\) **Dew, J. Thurman** \(17\) – Chloropicrin and PCN in UK Soils – Pilot Study 2010.](#)
- [!\[\]\(4e3fbe2ef35291baab7a42cb80921f3b_img.jpg\) **Smith, Charles** \(18\) – Overview of Recent Fumigant Emissions Research.](#)
- [!\[\]\(7e07afcbfd46dd92c708e363ec417c00_img.jpg\) **Triky-Dotan, Shachaf** \(19\) – Dissipation of Soil Fumigants Following Repeated Applications.](#)
- [!\[\]\(7e5084a8da4d5ff6d50d22c09ead9317_img.jpg\) **Stanghellini, Mike** \(20\) – A Comprehensive Review of Chloropicrin Field Volatility Studies.](#)
- [!\[\]\(8c0fccc5cb44cb6c2349621b2f03ed16_img.jpg\) **Qian, Yaorong** \(21\) – The Permeability of Tarps and the Potential Influencing Factors.](#)
- [!\[\]\(9a272a5aed417ba1b638a5decd49d86e_img.jpg\) **Sullivan, David** \(22\) - Recent Progress Made by Applicators in Reducing Airborne Flux of Metam-Sodium: A Case Study.](#)
- [!\[\]\(41c0e1b925839722a4d1554dd00e2252_img.jpg\) **Shennan, Carol** \(23\) – Optimizing Anaerobic Soil Disinfestation for Strawberry Production in California.](#)
- [!\[\]\(00ff213f4755bda2684037849bc00d38_img.jpg\) **Klonsky, Karen** \(24\) – Economic Performance of Alternative Preplant Fumigation Treatments for Almonds.](#)
- [!\[\]\(8ff4178385db741643d613d0a7d58379_img.jpg\) **Beede, R. H.** \(25\) -- Update on a Preplant Methyl Bromide Alternatives Trial in a Walnut Replant Site.](#)
- [!\[\]\(7def4de0a99ddfe75d69cf0afe068e7a_img.jpg\) **Gao, Suduan** \(26\) – Demonstration of Low Permeability Tarp Technology in Soil Fumigation for Perennials.](#)

- [!\[\]\(a22ba4e13c745edbf29e51af246c4c12_img.jpg\) **Hanson, Bradley D.** \(27\) – Pacific Area-wide Program: Current Status of the California Perennial Nursery Sector.](#)
- [!\[\]\(33b18af9a4b997eb52666cfeb3c44157_img.jpg\) **Browne, Greg** \(28\) – Integrated Pre-plant Alternatives to Methyl Bromide for Almonds and Stone Fruits.](#)
- [!\[\]\(262b158440b847a82f89a14cab8644ec_img.jpg\) **Wieland, Jerry** \(29\) – *Fusarium* and *Pythium* Populations after Planting in Fumigated Plots.](#)
- [!\[\]\(f51929fecf7b0dc947ac13f4c4835e8f_img.jpg\) **Walters, Thomas** \(30\) – Methyl Bromide Alternatives Trials in Raspberry Nurseries.](#)
- [!\[\]\(dfbf0e54bcca114319aa65c906feb8d0_img.jpg\) **Wang, Dong** \(31\) – Vineyard Replant Update – Pacific Area-wide Program for Methyl Bromide Alternatives.](#)
- [!\[\]\(64792950f1b7ee883a860b5f0af110c3_img.jpg\) **Fennimore, Steven A.** \(32\) – Facilitating Adoption of Alternatives to Methyl Bromide in California Strawberries.](#)
- [!\[\]\(a4c91228d412dab12bd635819fc28c10_img.jpg\) **Stoddard, Scott** \(33\) – Methyl Bromide Alternatives Show Good Potential for Sweetpotato Hotbeds.](#)
- [!\[\]\(c6956848df6ff9e9b3dad161d5adefac_img.jpg\) **Gerik, James** \(34\) – Calla Lily Production without Methyl Bromide – Pacific Area-wide Program for Methyl Bromide Alternatives.](#)
- [!\[\]\(a8426952ff919f2600e76f3323526877_img.jpg\) **Chellemi, Dan O.** \(35\) – Monitoring Chloropicrin under Diverse Shank Application Scenarios.](#)
- [!\[\]\(0fb7605bbd46a254dc450a278ff2f6f9_img.jpg\) **Noling, Joseph W.** \(36\) – USDA ARS South Atlantic Area-wide Program: Large Scale Filed Demonstrations in Florida Strawberry 2009 -2010.](#)
- [!\[\]\(d3775df7c3b7065aa22c91a03bb88dca_img.jpg\) **MacRae, Andrew** \(37\) – Development and Implementation of Fumigant REDs Training for the Southeast US.](#)
- [!\[\]\(245ba948a3d2a15e4e94f33933d3d19f_img.jpg\) **Quicke, Marie** \(38\) – 2010 Methyl Bromide Alternatives: Forest Tree Nurseries in Southern USA.](#)
- [!\[\]\(d5b34b598b2841916e43f7acaa9d00c7_img.jpg\) **MacRae, Andrew** \(39\) – Evaluation of all Components of the 3-WAY System for Use in Central Florida Tomato.](#)
- [!\[\]\(2f4c2929d10c5f5b778315e363a40572_img.jpg\) **Welker, Rob** \(40\) – Outreach and New Approaches for Methyl Bromide Alternatives through the USDA Area Wide Project.](#)
- [!\[\]\(0cf70618d22722e747f25dc74f95dacd_img.jpg\) **Wang, Dong** \(41\) – Yield and Water Assessment of Strawberry Production in Raised-bed Troughs.](#)
- [!\[\]\(e46aee2da2fe9b8dc3410ed9d94858a2_img.jpg\) **Noling, Joseph W.** \(42\) – USDA CREES: Methyl Bromide Transitioning in Florida Strawberry Demo Trials 2008 -2010.](#)
- [!\[\]\(acbba48a0b2351b70ae87c4cd6989086_img.jpg\) **Highland, H. Brett** \(43\) – MelonCon WG® and SoilGard 12 G® Used in a Program as a Methyl Bromide Alternative.](#)

- [!\[\]\(3da2b303d29c1ea489bbe26a3f5ac664_img.jpg\) **Freeman, Josh** \(44\) – Utilization of Grafted Tomato Seedlings for Bacterial Wilt Resistance in Open Field Production.](#)
- [!\[\]\(9421cea5a5b5319f79b58962509475ab_img.jpg\) **Louws, Frank** \(45\) – A Multi-Institutional Public and Private Response to Risk Mitigation Measures for Soil Fumigants.](#)
- [!\[\]\(17cce402a0380c36f25e02ecf91578f5_img.jpg\) **Noling, Joseph W.** \(46\) – Assessing Crop Impact and Sting Nematode Management in Florida Strawberry.](#)
- [!\[\]\(1086da34995924f924c8e8e23387d139_img.jpg\) **Anil, Sebastian** \(47\) – Life Cycle Analysis of Pallets and Phytosanitary Treatment Methods.](#)
- [!\[\]\(ffa6dd4cd8800071ccc1a355540c540c_img.jpg\) **MacRae, Andrew** \(48\) – Sustainability of Methyl Bromide Alternatives – Squash Double Crop.](#)
- [!\[\]\(dfba61b58454dd961d978e324a1fb5e5_img.jpg\) **Vallad, Gary** \(49\) – Sustainability of Methyl Bromide Alternatives – Tomato and Pepper Initial Crop.](#)
- [!\[\]\(9580d03b8c5bd7e23dc602a02886460d_img.jpg\) **Schilling, Wes** \(50\)-Controlled Atmosphere Treatments to Control Arthropod Pests of American Dry Cured Hams.](#)
- [!\[\]\(406c76dc95713637836155a54c3b56d5_img.jpg\) **Johnson, Judy** \(51\) – Development of Radio Frequency Treatments for Dried Pluses.](#)
- [!\[\]\(b950fe96ed6737d8544db83990032195_img.jpg\) **Burkes, Charles** \(52\) – Mating Disruption for Navel Orangeworm in Central California Year 3.](#)
- [!\[\]\(ec7b82925343491880a39b127070bd34_img.jpg\) **Siegel, Joel** \(53\) – Problems Implementing a Systems Approach for Navel Orangeworm in California.](#)
- [!\[\]\(bb20e4cc9af9ca0b97fbe827353956b8_img.jpg\) **Marcotte, Michelle** \(91\) – MBTOC Views, Research Needs and Myths.](#)
- [!\[\]\(c214ddf0ae2379eaabf8c69e717ce4dc_img.jpg\) **Walse, Spencer** \(54\) – Mapping Sulfuryl Fluoride Quarantine Control of *Amyelois transitells* Using Multivariate Modeling.](#)
- [!\[\]\(4ab8b8afe6b00cdef47511259a876ad4_img.jpg\) **Emekci, Mevlut** \(55\) – The Efficacy of Sulfuryl Fluoride Against Egg Stage of the Dried Fruit Beetle.](#)
- [!\[\]\(98c88aacf7bacdc4699eadf00b1c0084_img.jpg\) **Ferizli, Guray** \(56\) – Does Sulfuryl Fluoride and Heat Combination Overcome the Egg Weakness of Almond Moth?](#)
- [!\[\]\(8c8472ec338d907500225220409b1481_img.jpg\) **Thoms, Ellen** \(57\) - Sulfuryl Fluoride as a Quarantine Treatment for Wood Products.](#)
- [!\[\]\(2b5e107f13a13f50a6b1482f36f06f97_img.jpg\) **Thoms, Ellen** \(58\) – Sulfuryl Fluoride for Quarantine Treatment of Pinewood Nematode.](#)
- [!\[\]\(39482ed3bcfe2ba50520433d9205a285_img.jpg\) **Glennon, Dennis** \(90\) – Automated Web-Based Infrared Monitoring System for Milling and Quarantine Fumigations.](#)

- [!\[\]\(849840539e55921a3851a4ff96d7400d_img.jpg\) **Hennessey, Mike** \(60\) - APHIS-PPQ Alternative Quarantine Treatment Methods Development Progress - 2010.](#)
- [!\[\]\(c176e0b06f6c5dd85a4598b214d1ebba_img.jpg\) **DeLima, Francis** \(61\) – Ethyl Formate + CO2 Fumigation of Table Grapes for Light Brown Apple Moth.](#)
- [!\[\]\(66a18e26647fc145bd9198dd182dd107_img.jpg\) **Flingelli, Gabriele** \(62\) – Phosphine Fumigation of Green and Yellow Kiwifruit for Quarantine.](#)
- [!\[\]\(572bcf30fdd4de64673b94584b7c6eca_img.jpg\) **Campbell, James** \(63\) – Impact of Structural Fumigation on Pest Populations in Food Processing Facilities.](#)
- [!\[\]\(ba6dc7fecffbf82e7fd414c1c97a1ece_img.jpg\) **Arthur, Frank** \(64\) – Residual Efficacy of Pyrethrin-Methoprene Aerosols on Packaging Surfaces.](#)
- [!\[\]\(7b0c59a8d567ae8f4c94e1b0dfc0504e_img.jpg\) **Holcomb, Mike** \(65\) – An IPM Approach to Methyl Bromide Replacement.](#)
- [!\[\]\(6e7b00b003bc1efbd5a833fe586c1576_img.jpg\) **Horn, Pedro** \(66\) – Automated Structural Fumigations with Phosphine Using the Horn Diluphos System.](#)
- [!\[\]\(f2e2aef7ad678fd5527dfd3a24e78b6d_img.jpg\) **Hartzer, Michelle** \(67\) – Methyl Bromide, Sulfuryl Fluoride and Heat: Effectiveness Against Red Flour Beetle.](#)
- [!\[\]\(0bdc169ad27675acfc0a2460ebf11020_img.jpg\) **Hosoda, Ed** \(68\) – Update on the Commercial Acceptance of Profume Gas Fumigation.](#)
- [!\[\]\(ff1db8033de97c9b5192b575e06c8897_img.jpg\) **Williamson, Peter** \(69\) – Profume at Low Rates on Large Grain Bunkers for Complete Control.](#)
- [!\[\]\(8e22f16edd611aa34ab98b6176f90abf_img.jpg\) **Thoms, Ellen** \(70\) – First Commercial Sulfuryl Fluoride Cocoa Bean Fumigation in the European Union.](#)
- [!\[\]\(8d7540c68f056d32e1f5c277c946b92b_img.jpg\) **Barnekow, David** \(71\) – Profume Gas Fumigant: US and Global Regulatory Update.](#)
- [!\[\]\(3bb45e9059d5a505b3fa2f4e5c39e3da_img.jpg\) **Park, Min-Goo** \(72\) - Effect of PH3 + CO2 Mixture as a Quarantine Fumigant in Cut Flowers.](#)
- [!\[\]\(bcbb2ca52bf0ba47932372eb96197d41_img.jpg\) **Falco, Joseph** \(73\) - Large Scale Methyl Bromide Recapture for QPS.](#)
- [!\[\]\(86bfe340afcacac49a3dd00ab134ada7_img.jpg\) **Mack, Ron** \(74\) - Efficacy of Radiofrequency Treatment on Asian Longhorned Beetle \(ALB\) and Emerald Ashborer \(EAB\) in Roundwood.](#)
- [!\[\]\(9b99400845b7213efae8696f53f668bd_img.jpg\) **Son, Yerim** \(75\) - A Pilot Study to Apply CATTIS Against the Peach Fruit Moth, *Carposina sasakii*, in Apples.](#)
- [!\[\]\(246a070aa530e685bd4358f7a4e50d22_img.jpg\) **Kokalis-Burelle, Nancy** \(76\) - Grafting for Control of *Meloidogyne incognita* on Bell Pepper, Tomato and Melons.](#)
- [!\[\]\(7dc89558730445a73c5b7315038c9f70_img.jpg\) **Bausher, Michael** \(77\) - Performance of Grafted Tomatoes in Open Field](#)

[Trials at Two Locations in Florida.](#)

[!\[\]\(d84e7ea36f695d92cb39ec32c307ac93_img.jpg\) **Fennimore, Steven** \(78\) - \[A Strategy to Sustainably Produce Strawberry without Fumigants.\]\(#\)](#)

[!\[\]\(feabb98897b440bc8695a03336a6e2df_img.jpg\) **Sams, Carl** \(79\) - \[Using Mustard Seed Meal to Biofumigate Strawberry Soil.\]\(#\)](#)

[!\[\]\(9dfdaff1d86ba3c1f8353b4d1b61b8c5_img.jpg\) **Walters, Thomas** \(80\) - \[Top Ten Things to Know About Methyl Bromide: A Raspberry Nursery Survey.\]\(#\)](#)

[!\[\]\(83f22ed94ec5517769dd76d702c6bfd8_img.jpg\) **Lakshman, Dilip** \(81\) - \[Molecular Identification and Fungicide Tolerance of Rhizoctonia from Turfgrass.\]\(#\)](#)

[!\[\]\(8d0f0e0fe25b320c33272c52aec1fbca_img.jpg\) **Roskopf, Erin** \(82\) - \[Evaluation of Alternatives to Methyl Bromide for Ornamental Crop Production in Florida.\]\(#\)](#)

[!\[\]\(642aa997563f9a325b310230bb5078b7_img.jpg\) **Roskopf, Erin** \(83\) - \[Evaluation of Steam for Nematode and Weed Control in Cut Flower Production in Florida.\]\(#\)](#)

[!\[\]\(2b376d1a92330ab09dad2665d2f89bf5_img.jpg\) **Roskopf, Erin** \(84\) - \[Development of Anaerobic Soil Disinfestation for Florida Vegetable and Flower Production.\]\(#\)](#)

[!\[\]\(3cb60d42b10e53f9522bb0b392c1c4cd_img.jpg\) **Hanson, Bradley** \(85\) - \[Steam Disinfestation as a Methyl Bromide Alternative in California Cut Flower Nurseries.\]\(#\)](#)

[!\[\]\(d0262bbe9d2356661a2e89321dfcc781_img.jpg\) **Dew, Thurman** \(86\) - \[Chloropicrin and PCN in UK Soils – Pilot Study 2010.\]\(#\)](#)

[!\[\]\(51514032c8ca341817228f39f1307b05_img.jpg\) **Qin, Ruijun** \(87\) - \[Effect of Soil Moisture on Emissions and Behavior of Fumigants in Different Textured Soils.\]\(#\)](#)

[!\[\]\(c444627dab9fee9a1550c053ffaaaae2_img.jpg\) **Hewlett, Thomas** \(88\) - \[Preparation for Commercial Production of *Pasteuria* spp. to Control Root-Knot Nematode.\]\(#\)](#)

[!\[\]\(0d7ca0919e6c47bbd874bfa0189fe22e_img.jpg\) **Driver, Jim** \(89\) – \[Evaluation of Non-Fumigant Based and Drip Applied Nematicides to Manage Root-Knot Nematode \\(*Meloidogyne* spp.\\) on Yellow Squash.\]\(#\)](#)

[Back to Home Page.](#)