

Abbreviated Curriculum Vitae of:

Justin E. Nay, Ph.D.

Integral Ag., Inc.

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Employment:

President, CEO, Professional Consultant, & Pest Control Advisor, Integral Ag., Inc. (IAI), December 2008 to present. Justin Nay established IAI in 2008 with 6,000 contracted acres of professional consulting. Today, the company provides professional agronomic and pest management consulting services for over 40,000 acres. Crops are varied and include almonds, walnuts, pistachios, pecans, chestnuts, cherries, peaches, plums, prunes, citrus (navel, valencia, pomelo, lemon, & mandarin), grapes (wine, raisin, & table), kiwis, vine seed (cucumber, squash, pumpkin, & watermelon), dry beans (lima, fava, garbanzo, chickpea, & kidney), safflower, feed corn, alfalfa, sunflowers, and processing tomatoes.

Previous Employment

Pest Control Advisor, Scientific Methods, Inc., March 2006 to December 2009.

Farm Manager, Christmas Tree Farm, Riverside, CA, 2001 to 2006.

Laboratory Assistant, Dr. T.M. Perring, University of California, Riverside, 2001 to 2003.

Education:

Ph.D. in Entomology: Integrated Pest Management major, Chemical Ecology minor, Statistics outside minor—University of California, Riverside, CA, 2006. Dissertation entitled: Biology, Ecology, and Management of the Carob Moth, *Ectomyelois ceratoniae* (Zeller) (Lepidoptera: Pyralidae), a Pest of Dates, *Phoenix dactylifera* L. in Southern California. Major Professor: Thomas M. Perring.

B.S. in Entomology: Minor in statistics—University of California, Riverside, CA, 2003. Major Advisor: Thomas M. Perring. Graduated magna cum laude.

Publications:

Nay, J.E., E.M. Peterson, and E.A. Boyd. 2012. Evaluation of monitoring traps with novel bait for navel orangeworm (Lepidoptera: Pyralidae) in California almond and pistachio orchards. *Journal of Economic Entomology*. 105(4):1335-1341.

Nay, J.E. and T.M. Perring. 2009. Effect of center cut strand thinning on fruit abscission and *Ectomyelois ceratoniae* (Lepidoptera: Pyralidae) infestation in California date gardens. *Journal of Economic Entomology*. 102(3):948-953.

Nay, J.E. and T.M. Perring. 2008. Influence of host plant stages on carob moth (Lepidoptera: Pyralidae) development and fitness. *Environmental Entomology*. 37(2):568-574.

Nay, J.E. and T.M. Perring. 2008. Blue palo verde, *Parkinsonia florida* (Benth. ex Grey) S. Wats. (Fabaceae), a new host of the introduced carob moth, *Ectomyelois ceratoniae* (Zeller) (Lepidoptera: Pyralidae), in southern California. *Pan-Pacific Entomologist*. 84(2):143-145.

Nay, J.E., Y-L. Park, and T.M. Perring. 2007. Effect of bunch sanitation on spatial distributions of abscised fruit and phycitine moths (Lepidoptera: Pyralidae) in California date gardens. *Journal of Economic Entomology*. 100(6):1773-1780.

Boyd, E.A., J.E. Nay, and M.S. Hoddle. 2007. A new plastic soda bottle cage useful for standardizing biological studies of arthropods on plants. *Southwestern Entomologist*. 32(3): 177-180.

Krell, R.K., E.A. Boyd, J.E. Nay, Y-L. Park, and T.M. Perring. 2007. Mechanical and insect transmission of *Xylella fastidiosa* to *Vitis vinifera*. *American Journal of Enology and Viticulture*. 58: 211-216

Nay, J.E. 2006. Biology, ecology, and management of the carob moth, *Ectomyelois ceratoniae* (Zeller) (Lepidoptera: Pyralidae), a pest of dates, *Phoenix dactylifera* L. in southern California. Ph.D. Dissertation. University of California, Riverside, CA. 278 pp.

Nay, J.E., E.A. Boyd, and T.M. Perring. 2006. Reduction of carob moth in 'Deglet Noor' dates using a bunch cleaning tool. *Crop Protection*. 25: 758-765.

Nay, J.E. and T.M. Perring. 2006. Effect of fruit moisture content on mortality, development, and fitness of the carob moth (Lepidoptera: Pyralidae). *Environmental Entomology*. 35(2):237-244.

Nay, J.E. and T.M. Perring. 2005. Impact of ant predation and heat on carob moth (Lepidoptera: Pyralidae) mortality in California date gardens. *Journal of Economic Entomology*. 98(3):725-731.

Presentations

Speaking Engagements:

2012 Entomological Society of America Annual Meeting, Knoxville, TN, November 11th. Presentation entitled: Mass trapping *Amyelois transitella*: A case for area-wide application. Authors: J.E. Nay and E.A. Boyd.

2010 Entomological Society of America Annual Meeting, San Diego, CA, December 14th. Presentation entitled: Mass trapping Navel Orangeworm, *Amyelois transitella* (Lepidoptera: Pyralidae), in California Almonds. Authors: J.E. Nay and E.M. Peterson.

2009-2012 Agricultural Chemicals course, California State University, Chico, CA, October. Presentation entitled: Recommendation writing using Agrian. . Invited by Elizabeth A. Boyd.

2008-2010 Agricultural Chemicals course, California State University, Chico, CA, October. Presentation entitled: Sampling and Monitoring: techniques for making informed pest management decisions. Invited by Elizabeth A. Boyd.

2006 Butte County Resource Conservation District's (BCRCD) a "Day in the District" bus tour, BCRCD, Durham, CA, November 15th. Presentation entitled: Reduced pesticide programs for managing navel orangeworm, peach twig borer, mites, and diseases in California almonds. Invited by Barry M. Wilk.

2003 Entomological Society of America Annual Meeting, Cincinnati, OH, October 26th. Presentation entitled: Identification of attractants and oviposition stimulants for the carob moth, *Ectomyelois ceratoniae* Zeller (Lepidoptera: Pyralidae). Authors: J.E. Nay and T.M. Perring.

2002 Entomological Society of America Annual Meeting, Fort Lauderdale, FL, November 18th. Presentation entitled: Behavioral aspects of the carob moth on dates. Authors: J.E. Nay, T.M. Perring, and C.A. Farrar.

Poster Presentations:

2013 Entomological Society of America Annual Meeting, Austin, TX. Entitled: The future of mass trapping Navel Orangeworm (*Amyelois transitella*) in California Almonds and Pistachios. Authors: J.E. Nay, E.M. Peterson, and E.A. Boyd.

2010 Entomological Society of America Annual Meeting, San Diego, CA. Entitled: Monitoring Navel Orangeworm (*Amyelois transitella*) in California Almonds and Pistachios. Authors: J.E. Nay, E.M. Peterson, and E.A. Boyd.

2009 Entomological Society of America Annual Meeting, Indianapolis, IN. Entitled: Monitoring Navel Orangeworm (*Amyelois transitella*) in California Almonds and Pistachios. Authors: J.E. Nay, E.M. Peterson, and E.A. Boyd.

2007 Entomological Society of America Annual Meeting, San Diego, CA. Entitled: Evaluation of bunch protectors for preventing insect infestation and preserving yield and fruit quality of dates. Authors: J.E. Nay, and T.M. Perring.

2006 Entomological Society of America Annual Meeting, Indianapolis, IN. Entitled: Effect of bunch sanitation on spatial distributions of abscised fruit and phycitine moths (Lepidoptera: Pyralidae) in California date gardens. Authors: J.E. Nay, Y.-L. Park, T.M. Perring.

2005 2nd Intl. Conference on Biological Control of Arthropods, Davos, Switzerland. Entitled: A new cultural control practice to enhance biological control of the carob moth by opportunistic predators in California 'Deglet Noor' date gardens. Authors: J.E. Nay, and T.M. Perring.