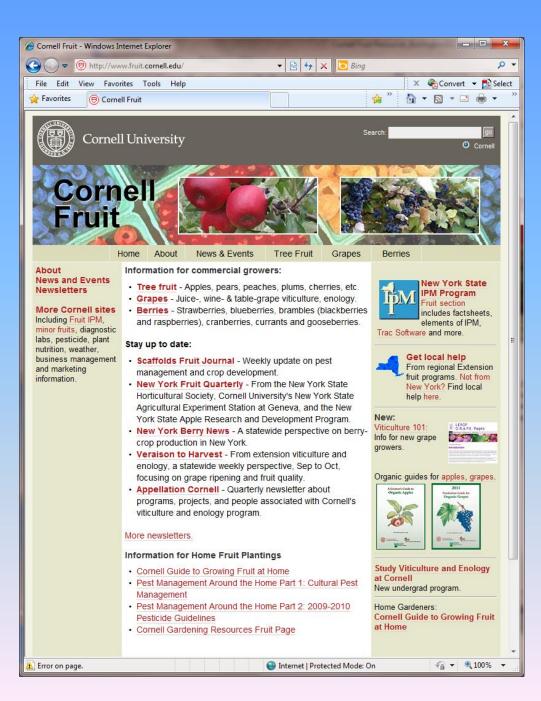


# Cornell Fruit Resources

# A website indexing information from the Fruit Program Work Teams

www.fruit.cornell.edu

Juliet Carroll, Marvin Pritts, Tim Martinson, Cathy Heidenreich, Craig Cramer and Marion Zuefle



# Home Page



# Tree Fruit Home Page

# Tree Fruit Production



# Site, Soil, Nutrient & Water Management

- Agro-One Services (soil testing)
- Cornell Soil Health Website
- Buffer pH to Derive Lime Guidelines
- Fertigation for Apple Trees in the Pacific NW (2009 NYFQ v. 17-4, 60 kb pdf)
- Nutritional Effects on Apple Fruit Quality (2009 NYFQ v. 17-3, 368 kb pdf)
- Nutrient Requirements of 'Gala'/M.26 Apple (2009 NYFQ v. 17-4, 1.86 mb pdf)
- . Nitrogen and 'Gala' Fruit Size (2007 NYFQ v. 15-3, 510 kb pdf)

# Cultivars & Rootstocks

- · Susceptibility of Selected Apple Cultivars to Rusts (Plant Management Network)
- Susceptibility of Selected Apple Cultivars to Powdery Mildew (Plant Management Network)

Fruit Quarterly N.Y. Fruit Quarterly - Archived

More newsletters

More Cornell websites

back to 2000. Joint effort of the N.Y. State Horticultural Society.

Cornell University's N.Y. State

Agricultural Experiment Station

at Geneva, and the N.Y. State
Apple Research and Development Program.

- An Apple that Tastes Like Berries and One that Doesn't Brown (2008 CALS News article)
- New Apple Varieties, Trademarks and Clubs (2009 NYFQ v. 17-3, 309 kb pdf)
- Nursery Tree Architecture and Apple Rootstocks (2008 NYFQ v. 16-1, 816 kb pdf)
- · Scab-resistant Cultivars (2008 NYFQ v. 16-4, 232 kb pdf)
- · Antique Apples for Modern Orchards (2008 NYFQ v. 16-4, 3.34 mb pdf)
- The Apple Collection in Geneva, NY (2008 NYFQ v. 16-1, 6.57 mb pdf)
- · Apple Genes for Disease Resistant Varieties

(2007 NYFQ v. 15-2, 693 kb pdf)

# Tree Training, Pruning & Planting Systems

- Tall Spindle System: Planting, Pruning, and Training
- · Vertical Axis System: Planting, Pruning, and Training
- Slender Pyramid System: Planting, Pruning, and Training
   Slender Axis System: Planting, Pruning, and Training
- Planting and Establishing High-Density Apple Orchards (2007 NYFQ v. 15-4, 298 kb pdf)
- More Competitive Apple Orchard Systems in NY (2007 NYFQ v. 15-1, 584 kb pdf)
- · Peach Planting Systems (2007 NYFQ v. 15-4, 239 kb pdf)

### Pollination

- Insect Pollination of Cultivated Crop Plants (1976/2009 USDA ARS)
- · Managing Alternative Pollinators: A Handbook (NRAES book)
- · Dyce Laboratory for Honey Bee Studies
- · Optimizing Pollination of Fruit Crops (2005)
- · Beekeepers with bees available for contract pollination

# Thinning & Growth Regulators Home Orchard

- · Cornell Guide to Growing Fruit at Home (2003)
- . Minor Fruits Under-used trees and shrubs for edible landscaping.
- · Growing Stone Fruits in New York (1994 Ecogardening Factsheet #12)
- Retain Combined with NAA Controls Pre-harvest Drop (2010 NYFQ v. 18-3, 976 kb pdf)
- Crop Load Management for Honeycrisp Apples (2009 NYFQ v. 17-1, 4.38 mb pdf)
- · Crop Load Management of High-Density Apple Orchards (2008 NYFQ v. 16-2, 1.38 mb pdf)
- Improving Cherry Fruit Size of Self-Fertile Cultivars (2008 NYFQ v. 16-3, 318 kb pdf)
- Chemical Peach Thinning (2008 NYFQ v. 16-4, 520 kb pdf)
- Using a Carbohydrate Thinning Model (2007 NYFQ v. 15-3, 515 kb pdf)

# Tree Fruit General Production Archives

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# Tree Fruit IPM

# Weeds & Groundcovers

- Considerations for Herbicide Selection (2006, Uni. of Delaware, 36 kb pdf)
- The Effects of Ground Cover Manipulations on Pest and Predator Mite Populations (1989 FLS bulletin #128, 977 kb pdf)

### Wildlife

 Northeast Wildlife Damage Management Cooperative

# Apple scab fungicide resistance testing

Scaffolds Fruit Journal - Weekly update on pest management and crop development.

Tree Fruit & Berry Pathology - From the Tree Fruit and Berry Pathology group in Geneva.

- ·Lake Ontario Fruit Fax
- Hudson Valley Alerts
- More newsletters.
- More Cornell websites

# **Biological Control & Beneficial Insects**

- · Predatory Mites (NYS IPM factsheet)
- Beneficial Insects (NYS IPM factsheet)
- · Phytophagous Mirid Bugs (NYS IPM factsheet) 497 kb pdf
- · Western Predatory Mite (1993)
- The Effects Of Ground Cover Manipulations On Pest And Predator Mite Populations (1989 FLS bulletin #128, 977 kb pdf)

# Organic IPM

- · Organic Apple Production A Beginner's Guide (2011, NCAT/ATTRA webinar video)
- · A Grower's Guide to Organic Apples (2010, NYSIPM Program, 1.3 MB .pdf)
- Apples: Organic Production Guide (2011, ATTRA, subscription required)
- Evaluation of Pest Management Tactics for Organic Apple Production (2000, 54 kb pdf)
- Organic Materials Review Institute (OMRI)
- OMRI Products List
- Biopesticide and Organic Pesticide Search (IR-4)
- Pear Psylla Management Strategies Conventional and Organic (2007 NYFQ v. 15-2, 640 kb ndf).

# Spray Technology

- Orchard Spraying
- Calibration of Airbiast Sprayers Part 1 Nozzles (2008 YouTube video)
- · Calibration of Airblast Sprayers Part 2 Liquid Flow (2008 YouTube video)
- Pesticide Application Technology
- Vertical Patternator

# Pesticides

- · Pest Management Guidelines
- NYS PIMS
- · Pesticide Safety Education Program
- Pesticide Management Education Program
- · Biopesticides (EPA)
- OMRI Products List
- · Biopesticide and Organic Pesticide Search (IR-4)
- Env. Impact Quotient (EIQ) Table (135 kb pdf)
- Trac Software
- · Apple scab fungicide resistance testing

# **Home Orchard**

- . Cornell Guide to Growing Fruit at Home (2003)
- Help Fight Plum Pox Virus (2008 News release)
- · Fruit Production for the Home Gardener (Penn State book)
- · Plant Disease Diagnostic Clinic Fruit Factsheets
- Insect Diagnostic Laboratory Factsheets

# Tree Fruit IPM Archives



# More... Tree Fruit IPM Insects & Mites

# **External Fruit Damage** · Plum Curculio (NYS IPM factsheet) 232 kb pdf · Tarnished Plant Bug (NYS IPM factsheet) 247 kb pdf · Phytophagous Mirid Bugs (NYS IPM factsheet) 497 kb pdf Mullein Plant Bug (Cornell Biological Control factsheet) · Comstock Mealybug (NYS IPM factsheet) 290 kb pdf Brown Marmorated Stink Bug (Northeast IPM Center, 214 kb pdf) · Obliquebanded Leafroller (NYS IPM factsheet) 241 kb pdf · Hudson Valley Stink Bug Management (2008 NYFQ v. 16-3, 398 kb pdf) Internal Fruit Feeders · Codling Moth (NYS IPM factsheet) 278 kb pdf · Oriental Fruit Moth (NYS IPM factsheet) 274 kb pdf · Apple Maggot (NYS IPM factsheet) 270 kb pdf · Green Fruitworm (NYS IPM factsheet) 241 kb pdf · Green Fruitworms (1974 FLS bulletin #50, 319 kb pdf) · European Apple Sawfly (NYS IPM factsheet) 309 kb pdf · Using Sticky Traps to Monitor Fruit Flies in Apple and Cherry Orchards (1978 FLS bulletin #70, 302 kb pdf) · Cherry Fruit Fly and Black Cherry Fruit Fly (NYS IPM factsheet) 229 kb pdf · Plum Curculio (NYS IPM factsheet) 232 kb pdf Pheromone Products for Codling Moth and Oriental Fruit Moth (2009 NYFQ v. 17-1, 3.44 mb) · Pheromone Dispensers for Mating Disruption of Internal Lep's (2007 NYFQ v. 15-4, 1.33 mb Wood-Boring · Dogwood Borer (NYS IPM factsheet) 249 kb pdf · Peachtree Borer (NYS IPM factsheet) 275 kb pdf · American Plum Borer (NYS IPM factsheet) · Apple Boring Beetles (NYS IPM factsheet) Apple Burrknot Borers in New York (2003, 24 kb pdf) · Controlling Dogwood Borer with an Antagonistic Sex Pheromone (2010 NYFQ v. 18-3, 288 kb Scale Insects · San Jose Scale (NYS IPM factsheet) 201 kb pdf · European Red Mite (NYS IPM factsheet) 250 kb pdf · Predatory Mites (NYS IPM factsheet) · Sampling Second Generation Spotted Tentiform Leafminer (1993 FLS bulletin #143, 582 kb . The Effects of Ground Cover Manipulations on Pest and Predator Mites (1989 FLS bulletin #128, 977 kb pdf)



# More... Tree Fruit IPM Diseases

# Powdery Mildew & Rust Diseases · Cedar Apple Rust (NYS IPM factsheet) 255 kb pdf · Susceptibility of Selected Apple Cultivars to Rusts (Plant Management Network) · Powdery Mildew of Apple (NYS IPM factsheet) 418 kb pdf · Powdery Mildew of Stone Fruit (Rusty Spot) (Kearneysville TFREC factsheet) · Powdery Mildew of Cherry (Kearneysville TFREC factsheet) Susceptibility of Selected Apple Cultivars to Powdery Mildew (Plant Management Network) • Fungicide Programs for Apple Powdery Mildew (2007 NYFQ v. 15-3, 701 kb pdf) · Cherry Leaf Spot (Kearneysville TFREC factsheet) · Fabraea Leaf Spot (Kearneysville TFREC factsheet) · Peach Leaf Curl (Kearneysville TFREC factsheet) · Bacterial Canker of Sweet Cherry (Kearneysville TFREC factsheet) Virus & Phytoplasma Diseases · Plum Pox Disease of Stone Fruits (NYS IPM factsheet, 949 kb pdf) Geneva Experiment Station Helps NY Fight Plum Pox Virus (2008 Cornell Chronicle article) Pome Fruit: Diseases Caused by Viruses (2003, Washington State University NRSP5) · Pear Virus Diseases (Kearneysville TFREC factsheet) · Prunus Stem Pitting Virus (Kearnevsville TFREC factsheet) · X-Disease (Kearneysville TFREC factsheet) Scaffold, Crown & Root Diseases · Bacterial Canker of Sweet Cherry (Kearneysville TFREC factsheet) . Black Knot of Plum (NYS IPM factsheet) 282k pdf · Perennial Canker (NYS IPM factsheet) 402k pdf · Wood Rots (Kearneysville TFREC factsheet) · Crown Gall of Apple (Penn State factsheet) · Nectria Canker (Kearneysville TFREC factsheet) · Phytophthora Root and Crown Rot (NYS IPM factsheet) 352k pdf • Pruning Techniques to Manage Bacterial Canker (2010 NYFQ v. 18-1, 1.77 mb pdf) · Canker Problems in Apple Orchards (2007 NYFQ v. 15-4, 1.8 mb pdf) **Diseases Affecting Fruit** · Blister Spot of Apple (1982 FLS bulletin #95, 391 kb pdf) · Black Rot (Kearneysville TFREC factsheet) · Bitter Rot (Kearneysville TFREC factsheet) · White Rot (Kearnevsville TFREC factsheet) · Brook's Spot (Kearneysville TFREC factsheet) · Pear Scab (Kearneysville TFREC factsheet) Peach Scab (Kearneysville TFREC factsheet) · Bacterial Spot of Peach (Kearneysville TFREC factsheet) . Brown Rot of Stone Fruit (NYS IPM factsheet) 276k pdf **Postharvest Diseases** · Blue Mold (Kearnevsville TFREC factsheet) · Mucor Rot (Penn State factsheet) · Market Diseases of Apples, Pears and Quinces (1971, Washington State University TFREC) · Biocontrol of Fruit Rots (2008)



# Tree Fruit Post Harvest

# Food Safety USDA GAP/GHP Food Safety Audit Food Safety and inspection Service (USDA) NY GAPs Collaborators GAPs Educational Materials Tree Fruit Post Harvest & Food Safety Archives



# Food Safety webpage for all fruit commodities



# shared Enology page

# Alcoholic and ML Fermentation

- · Fermentation for Distillation (from Dec. 2010, Cellar Dweller, 275 kb pdf)
- When MLF is not the answer: Strategies to prevent maiolactic fermentation (from Nov. 2010, Cellar Dweller, 237 kb pdf)
- . The care and feeding of bacteria (from Dec. 2009, Cellar Dweller, 223 kb pdf)
- · Stuck fermentations and glucose/ fructose ratios (from Dec. 2009, Cellar Dweller, 209 kb pdf)
- Frequently-Asked Questions about Yeast Assimilable Nitrogen (from Veraison to Harvest #6, 338 kb pdf)

# Analysis

- · Sulfur Dioxide (SO2) 3 Ways (from Jan. 2011, Cellar Dweller, 271 kb pdf)
- · Percent Alcohol 3 Ways (from Dec. 2010, Cellar Dweller, 276 kb pdf)
- · Monitoring malolactic fermentation 3 ways (from Nov. 2010, Cellar Dweller, 385 kb pdf)
- · Residual/Reducing Sugar 3 Ways (from Feb. 2011, Cellar Dweller, 276 kb pdf)
- Potholes on the Road of Acid Measurement (from Jan. 2011, Cellar Dweller, 271 kb pdf)
- Kicking up a Stink: Treatment for Sulfur Off-Odors (from April 2010, Cellar Dweller, 230 kb pdf)
- Aroma Screen for Sulfur Off-Odors (1995, Zoecklein et al. 73.6 kb pdf)
- Ask Barry Walte...Chardonnay with strange but fruity aromas and flavors (from Feb. 2010, Cellar Dweller, 250 kb pdf)
- Ask Barry Waite...Sending a sample to the wine analytical lab (from Jan. 2010, Cellar Dweller, 252 kb pdf)

# Stability/Finishing Adjustments

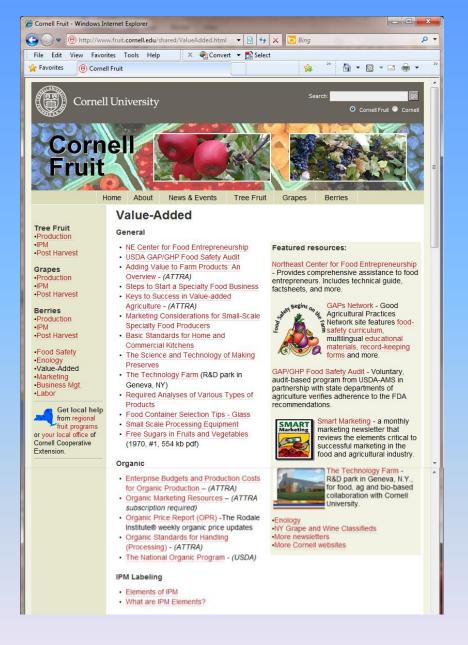
- SO2 Use (from Jan. 2010, Cellar Dweller, 278 kb pdf)
- · Residual Sugar: Chemistry and Perception (from Feb. 2011, Cellar Dweller, 247 kb pdf)
- · Cold stabilization (from Jan. 2010, Cellar Dweller, 276 kb pdf)
- Let a little knowledge filter through (from Feb. 2010, Cellar Dweller, 316 kb pdf)
- . Managing Acid in 2010 -Step 1: Forget 2009 (from Veraison to Harvest #3, 276 kb pdf)
- . Thoughts on Bench Trials (from April 2010, Cellar Dweller, 247 kb pdf)
- Ask Barry Waite...where the potassium meta-bisulfite I add is going (from Jan. 2010, Cellar Dweller, 252 kb pdf)

### Other

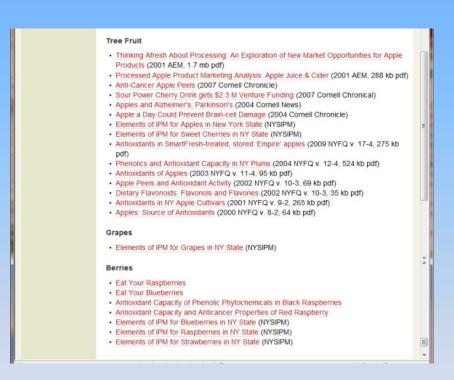
- Improving management options for YAN in the vineyard and winery (from Veraison to Harvest #6, 253 kb pdf)
- Ask Barry Waite...blended wine exhibiting slight precipitate (from April 2010, Cellar Dweller, 247 kb pdf)
- New York Winemakers Comment on the 2010 Vintage. (from Veraison to Harvest #9, 301 mb pdf)
- Willsboro Wine Trial Completes 6th Growing Season (from Veraison to Harvest #8, 461 kb pdf)
- Measuring Field-applied Sulfur Residues in Juice and Wine (from Veraison to Harvest #7, 275 kb pdf)
- · Botrytis: Will another fungicide spray help at this point? (from Veraison to Harvest #6, kb pdf)
- Vignoles Harvest: Shoot thinning, Training System and Botrytis (from Veraison to Harvest #5, 339 kb pdf)
- · Experimental Wine Production (1977, FLS Bulletin #66, 383 kb pdf)
- . Composition of New York State Grape Brandies (1974, FLS Bulletin #38, 249 kb pdf)
- Review of Grape and Wine Toxicity Research (1971, FLS Bulletin #6, 102 kb pdf)

# Regulations

· Labeling and Advertising of Wine



# Value-Added tree fruit, grapes, berries





# Marketing – all fruit crops

# Order NRAES books

- · Produce Handling for Direct Marketing (1992, NRAES #51)
- · Facilities for Roadside Markets (1992, NRAES #52)

### Tree Fruit

- Premier Apple Shows the Way Toward Smart Marketing! (2004 Smart Marketing, 164 kb pdf)
- Premium Tree-Ripened Fruit A Ripening Opportunity (2005 Smart Marketing, 39 kb pdf)
- Thinking Afresh About Processing: Opportunities for Apple Products (2001 AEM, 1.7 mb pdf)
- Processed Apple Product Marketing Analysis: Apple Juice & Cider (2001 AEM, 152 kb pdf)
- Processed Apple Product Marketing Analysis: Hard Cider & Wine (2001 AEM, 288 kb pdf)
- Estimating the Environmental Footprint of NY Apple Orchards (2010 NYFQ v. 18-1, 1.04 mb pdf)
- · Eating Quality and How We Measure Quality Objectively (2006 NYFQ v. 14-4, 116 kb pdf)

# Grapes

- . The Industrial Concord Market from a Broker's Point of View (1997, html)
- Developing a Wine Marketing Plan for a New Winery (2010 Smart Marketing, 105 kb pdf)
- Factors affecting NY Wines in Upscale Restaurants (Smart Marketing, March 2010)
- · Lake Erie Regional Grape Program Business Management
- · NY Grape and Wine Classifieds

# Berries

- · Should Production in High Tunnels Be Part of Your Specialty Crop Enterprise?
- · Marketing Small Fruit...Points to Ponder
- · Managing Small Fruit Crops for the Retail Market
- · Retailing Requires TBQM: Total Berry Quality Management
- Marketing Specialty Fruit
- · Marketing Specialty Jams and Jellies to Gourmet Consumers
- Email Marketing on Our Farm
- Blueberry Marketing Options (Northwest Berry and Grape Information Network)
- What Makes Direct Market Strawberry Farms Successful? (NC State Univ.)
- NYS Berry Pricing Trends, Changes, Challenges (2010 NYFQ v. 18-2, 500 kb pdf)

# Marketing Tip Sheets - From the non-profit CISA:

- · Excelling in Customer Service
- · Developing a Marketing Plan for Your Farm
- · Using Paid Advertising as Part of a Marketing Plan
- · Working with the Media: Public Relations and Publicity
- Better Merchandising for Increased Sales
- Workshops and Classes as a Marketing Strategy
- Creating a Farm Website
- · Technical Assistance: Creating a Farm Website (2008 addendum)
- Online Store
- Technical Assistance: Online Stores (2008 addendum)
- Building Relationships through Permission (E-mail) Marketing
- Blogs

Business, Marketing & Labor Archives



# Business Management

# Order NRAES books

- Facilities for Roadside Markets (1992, NRAES #52)
- Farming Alternatives: A Guide to Evaluating the Feasibility of New Farm-Based Enterprises (1988, NRAES #32)
- Used Farm Equipment: Assessing Quality, Safety, and Economics (1987, NRAES #25)
- · Farm Machinery Days for Small and Part-Time Farmers (1990, NRAES #45)

# **Energy Conservation**

- . Conserving Fuel on the Farm (ATTRA)
- · Farm Energy Audits: Availability, Usefulness, Cost (NCAT)
- Farm Energy Calculators: Evaluations and Recommendations (NCAT)
- Farm Energy Calculators: Tools for Saving Money on the Farm (ATTRA)
- Clean Energy Farming: Cutting Costs, Improving Efficiencies, Harnessing Renewables (SARE)

### Tree Fruit

- Fruit Farm Business Summary, Lake Ontario Region New York 2007 (2008 AEM, 654 kb pdf)
- Fruit Farm Business Summary: Lake Ontario Region New York 2006 (2007 AEM, 671 kb pdf)

·Horticultural business management and

Agricultural Marketing and Management

·GAPs multilingual educational materials

marketing program

NY Farm Net

NY Farm Link

Newsletters

Program Work Team

More Cornell websites

GAPs record-keeping forms

Cooperative Enterprise Program

Fruit Farm Business Summary: Lake Ontario Region New York 2005 (2006 AEM, 1,012 kb pdf)

# Grapes

- Cost of Establishment of V. vinifera in the Finger Lakes Region of New York 2010. (2011 AEM, 379 kb pdf)
- · Lake Erie Grape Farm Cost Survey: 2001-2005 (2006 AEM, 325 kb pdf)
- Writing a Business Plan: A Guide for Small Premium Wineries (2002 AEM, 362 kb pdf)
- Writing a Business Plan: An Example for a Small Premium Winery (2002 AEM, 349 kb pdf)
- · Vineyard and Winery Feasibility Workbooks (lowa State Univ.)
- · Lake Erie Regional Grape Program Business Management
- · NY Grape and Wine Classifieds

# Berries

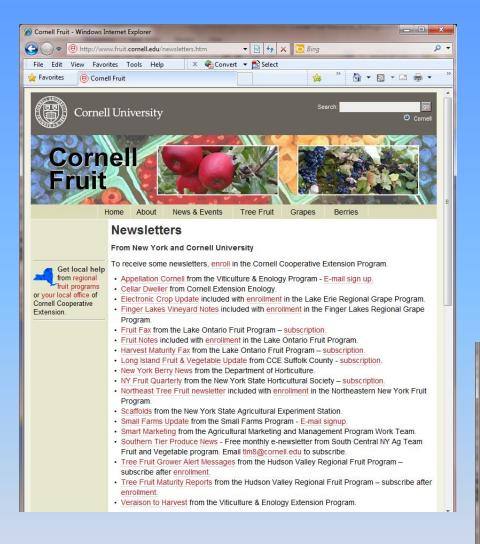
- Should Production in High Tunnels Be Part of Your Specialty Crop Enterprise?
- · Retailing Requires TBQM: Total Berry Quality Management

**Business, Marketing & Labor Archives** 

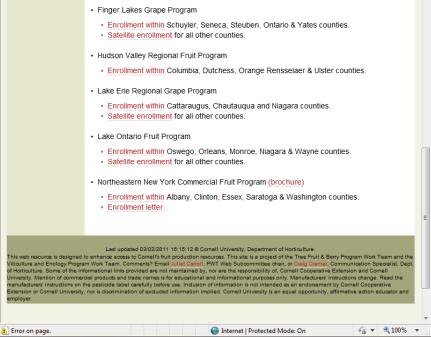


# Labor Management & Worker Safety

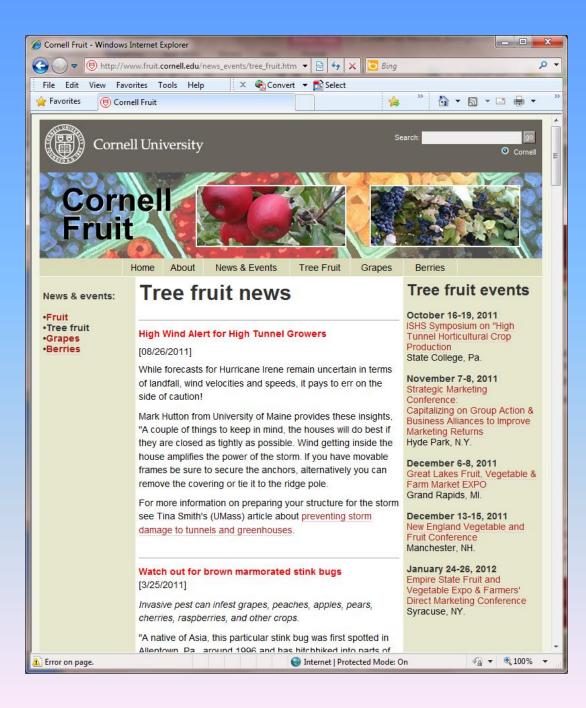
# Order NRAES books Workforce Management for Farms and Horticultural Businesses: Finding, Training, and Keeping Good Employees (1999, NRAES #117) Farm Rescue: Incidents and Emergencies in Agricultural Settings (1999, NRAES #10) First on the Scene (1989, NRAES #12) Used Farm Equipment: Assessing Quality, Safety, and Economics (1987, NRAES #25) Business, Marketing & Labor Archives



# **Newsletters**



Enrollment



# News & Events



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