

# McIntosh News



Bar Weeks

## *Soaking up sun in June*

March Farm, Bethlehem, Connecticut



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**Orchard Run** Russell Powell, executive director

# A rare chance for growth

**New opportunities are there,  
if growers have the will —  
and the patience**

**I**MAGINE IF, AFTER YEARS OF CONTRACTION, THE NEW ENGLAND APPLE INDUSTRY COULD ACTUALLY BEGIN TO THINK ABOUT EXPANDING AGAIN. Well, it could happen. Two emerging trends may make growth possible in the years ahead: the increasing popularity of fresh-sliced apples, and a growing world export market for U. S. apples.

In both cases, it may take several years to develop our region's potential to meet increased demand. But both the domestic market for fresh-sliced apples and rising demand for exports could lead to sustained, long-term gains for New England's apple industry.

The fresh-sliced market is booming. With our increased concern about nutrition and its link with obesity, apple slices are a good, healthy snack, and fresh-sliced apples are popular with children. McDonald's and Burger King, two of our biggest fast-food giants, now offer fresh-sliced apples as a healthier alternative to french fries, and in salads and oatmeal. The trend should only grow, as apple slices are less expensive and have a longer shelf life than cut strawberries, cantaloupe, honeydew melon, or pineapple.

The New England apple industry's first foray with fresh-sliced apples came in 2009, in a grant-funded project co-directed by Stephen Lacasse, then-chair of the board of directors of the New England Apple Association. As part of the study, "Packaging Fresh Produce for the Snack Food Market," Champlain Valley Specialty in

Keeseville, New York, developed a New England apple slice bag and brand. Apples were purchased from New England growers, fresh-sliced and packaged in four-ounce bags, and sold to public school systems in Connecticut, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

The apples were well-received by school children, but the bidding processes required by public schools resulted in too small a return for growers, and there were infrastructure challenges as well.

We're now looking at ways to tackle those logistical hurdles and re-enter the food service market, this time in more lucrative venues, targeting major cultural sites and professional and collegiate sports arenas. The idea is to develop a year-round market through the various sports and cultural seasons, and strengthen the infrastructure connecting growers, packinghouse, and customers. We are seeking funds as well for a feasibility study to evaluate if it is in the region's best interest to eventually build its own processing facility.

The project obviously will benefit growers who sell to these newly developed markets. But all of New England's apple growers will benefit indirectly from the increased visibility fresh-sliced apples will create. The year-round availability of New England fresh-sliced apples at large public gatherings will encourage consumption in other venues, from pick-your-own orchards to farmer's markets to supermarkets. Our experience will help guide farmers planting trees for these institutional customers, too.

**A** S PROMISING AS THE FRESH-SLICED MARKET LOOKS HERE IN NEW ENGLAND, THE GLOBAL SITUATION REPRESENTS AN EVEN GREATER OPPORTUNITY — IF CERTAIN CONDITIONS ARE MET.

It is no secret that there are challenges transporting and marketing McIntosh, our leading variety, to warmer climes like Central America and India and Israel, where there already is a huge appetite and growing hunger for apples from the United States.

We simply have better growing conditions and do a better job cultivating certain varieties than almost anywhere else in the world, and that is a solid foundation

for success with any long-term venture into exports. We sometimes take the quality of our apples for granted, but they distinguish themselves on the world stage. Yet soft-fleshed apples like McIntosh and Cortland are more difficult to ship than some of the harder varieties. But help may be on the way.

A team at the University of Massachusetts at Amherst, led by faculty members Frank Mangan, and Wes Autio in the department of plant, soil, and insect sciences, this past year conducted consumer research with McIntosh apples in El Salvador, with encouraging results. For one thing, some of the traditional prejudices against the Mac — that it is not solid red in color and Central American consumers prefer a sweet apple — could not have been more wrong. A consumer survey showed overwhelming preference for McIntosh's sweet-tart taste (after all, the



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**New opportunities in exports and with fresh-sliced apples can only be realized with patience and persistence, and timely help and input from a network of apple industry friends.**

popular native fruits include pineapple and mango), and placed a high value on the Mac's combination of red-and-green color, especially for festive occasions like Christmas.

Kris Marceca, director of the United States Export Council (comprising New England, California, Pennsylvania, Michigan, New York, and Virginia), has a similar idea in Asia. The apple is a potent symbol for celebrations, religious rites, and other special occasions in many cultures, and Kris thinks that the Mac could sell for a premium in specially designed packaged in places like Singapore and Malaysia.

Kris is a big fan of the Mac, and she has other

ideas about how to make it more attractive for export, even in more "mature" markets like Ireland (where New England currently sells most of its exports) and the United Kingdom. Kris sees value in marketing McIntosh as a soft fruit, aligning it with pears, for example, rather than insisting that it compete on the same terms as harder varieties like Fuji, Red Delicious, or even Empire.

For a number of years now, New England's export numbers have been relatively small. But there has been increased activity in the past few years, with new shipments to Canada and Israel, and now this research in Central America.

Regardless of how, and how successfully, McIntosh are marketed, there will need to be technical improvements with their ability to travel, as well. Many of these emerging global markets lack the infrastructure to move apples efficiently, or keep them refrigerated at all times. The Mac may require special handling and packaging. Long-term, farmers planting trees for this market may decide that a mix of varieties will serve their purposes better than rather just one or two.

The good news is that people like Kris and the UMass team are exploring new markets and working on these technical and logistical challenges now. The export council has operated a successful program promoting "USA Apples" in Central America for years now, for example, and this past season that region became the group's biggest export market for the first time. The council is always looking for new markets, such as India, with a huge middle-class and improving infrastructure, its most recent additions. Undoubtedly, it will not be the last. The UMass team, too, is applying for funds to continue and expand their research.

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The orchard view  
at March Farm,  
Bethlehem, Connecticut



Bar Weeks

New opportunities in exports and with fresh-sliced apples can only be realized with patience and persistence, and timely help and input from a network of apple industry friends like Kris and our state departments of agriculture. Ultimately, the region's farmers will determine the pace, scale, and target of any new market initiatives. But the potential for growth has never looked better.

**N**EW ENGLAND'S APPLE FARMERS OFTEN FIND IT DIFFICULT TO PLAN BEYOND THEIR NEXT HARVEST, THOUGH LONG-RANGE PLANNING

**IS AN ESSENTIAL INGREDIENT FOR SUSTAINABLE GROWTH IN ANY BUSINESS.** That's why Frank Carlson and his brothers continue to impress with their long-term vision. You will read elsewhere on these pages about their ambitious solar energy project, which is about to conclude its first year of operation. The solar panels are on schedule to produce about 267 kilowatt hours of electricity by the mid-August anniversary of the project going online.

That normally would amount to about 60 percent of the combined energy use of Carlson's orchard, farm store, and commercial cider operation. But the farm has aggressively invested in conservation measures as well, and over this same first year of solar production will see its total energy use drop by between 15 percent and 20 percent. As a result, about three-quarters of the farm's energy needs will be met by the solar installation.

Frank has his hands full running the orchard and the growing cider business. But he is always thinking ahead, and even though Frank has no immediate interest in making exports a significant part of his business, it was his McIntosh that the UMass team shipped to El Salvador.

It is a fresh example of why Frank is such a worthy choice for the newly created Massachusetts Food Policy Council. It is certainly good news for apple growers. Frank sees the big picture, and not with just himself in mind.

*Russell Powell is executive director of the New England Apple Association.*

# Coleslaw gets a new look

**K**OOLSLA (KOOL MEANING CABBAGE, SLAW FOR SALAD), DATES BACK TO 1785 DUTCH CUISINE. This slaw, with its red and green cabbages, is so festive looking, it may deserve a place on the Christmas buffet. And if the new look isn't enough to tempt you, try the new taste. Replace the usual mayonnaise with a tangy yogurt and bleu cheese dressing, add crunchy New England apples to the mix, and you have the makings of a healthy, attractive slaw. Just in time for your next summer picnic, New England Apple Coleslaw!

But can coleslaw also be a comfort food? The other day I was served an unusual slaw at an upscale café – it was warm and spicy! Try this recipe heated up to really bring out the contrasting sweet, tart, and tangy flavors.



## New England Apple Coleslaw

### *Slaw*

2 New England apples, diced

½ head each of red and green cabbage, cored and chopped

1½ c grated carrots

2 green onions, diced

½ c golden raisins

½ c roasted or Tahini sunflower seeds

### *Dressing*

1 c plain yogurt

¼ c bleu cheese

1/3 c apple cider or wine vinegar

1 T whole-grain mustard

¼ c sunflower, safflower, or olive oil

1 t celery seed

1 T fresh thyme

1 t salt

1 t fresh ground pepper



Pour dressing over cabbage mixture and toss to coat.

Cover and chill for 2 hours before serving.

Garnish with sunflower seeds.

Try it warm – heat in microwave!



Photos and text by Bar Weeks

# The Carlsons grow their own juice

By KIM MOTYLEWSKI

**A**LL SUMMER, THE SUN BEATS DOWN ON CARLSON ORCHARDS IN HARVARD, MASSACHUSETTS, POWERING THE PRODUCTIVITY OF 120 ACRES OF FRUIT TREES, including 14 kinds of apple trees, six types of peach and five kinds of nectarine trees as well as sizable blueberry and raspberry patches.

But once the mighty sun has done its job, enabling the trees to turn gas and water into sweet fruit, the farmers need lots of electricity to finish the job.

They chop and press countless apples into 500,000 gallons of cider. That juice is flash pasteurized, bottled, and refrigerated. That takes power. Other apples are cut for pie makers or mechanically sorted and bagged for immediate sale. More power.

Still others are crated and carried down a tidy warehouse corridor and packed into four humble-looking storage rooms. The doors are bolted, barred with plywood, and sealed with petroleum.

Up to 26,000 bushels of the finest apples grown each year, those judged too good for juicing, are held in these rooms through the winter in a kind of suspended animation. Their natural respiration and ripening are slowed to a minimum by atmospheric controls and refrigeration, requiring still more power to preserve their crunch until sold.

All this electricity was costing the Carlson brothers — Franklyn (Frank), Robert, and Bruce — an awful lot of money. Typically, energy represents 10 percent to 20 percent of operating costs on Massachusetts farms. Carlson Orchards was no exception. Until last summer, the electric bill there was running \$80,000 a year. But not any more.

With the help of a consultant, Symantha Gates, the farmers embarked on a two-part effort to reduce that

bill and claim a measure of energy independence. Their main motivation was competitiveness.

Medium-sized orchards producing fruit for wholesale markets are a dying species in New England. Their costs of production are higher than those of much bigger growers in California, or even New York. “The bottom line is we’re trying to become more sustainable,” says Frank Carlson, a practical, bearded, busy fellow in his 60s who fields phone calls, supervises apple sorters, and answers a manager’s question while he talks with a reporter.

First, the Carlson team mounted a farm-wide energy audit and improved the efficiency of many systems. They evaluated 129 motors and replaced the energy hogs. They retooled outdated refrigeration units and older lighting. They adopted timers on their refrigerated barns to circulate cold air at intervals, rather than constantly.

Second, they established themselves as energy producers. The growers installed a 220-kilowatt solar array on two acres of their land, making them the largest agricultural producer of solar energy in the Commonwealth.

Think of it as a photovoltaic orchard. Aging apple trees were replaced with trunks of steel beam, and a canopy of silicon panels. While the photosynthetic orchards transform sunlight into delicious fruit, this new orchard turns sunlight into electricity, helping to power the business. It is expected it to supply 60 percent to 70 percent of the farm’s energy needs from now on, and repay the Carlson’s investment in five years.

With a price tag of \$1.1 million, the farmers couldn’t have done the project on their own. It took a sustained and focused effort to successfully compete for funding, something the farmers say they couldn’t have done without Gates’ help. Ultimately, financial support





came from a variety of sources and amounted to 75 percent of the project costs. -

The first and biggest contributor was the Massachusetts Clean Energy Center, a branch of the Executive Office of Energy and Environmental Affairs. It provided a \$565,000 rebate through the Commonwealth Solar program. The United States Department of Agriculture's Natural Resources Conservation Service stepped up with a \$288,000 grant. Carlson Orchards invested \$250,000. The Massachusetts Department of Agricultural Resources (MDAR) contributed \$30,000 for the panels themselves and provided guidance to the farmers. In keeping with state requirements, the electricity distributor National Grid buys the farm's power and credits the orchard's account accordingly.

**C**ARLSON ORCHARDS' PROJECT IS ONE OF MORE THAN 100 STATEWIDE THAT HAVE IMPROVED ENERGY EFFICIENCY AND DEVELOPED RENEWABLE ENERGY SOURCES OVER THE PAST FOUR YEARS, according to MDAR. These efforts are part of the state's overall commitment to establishing Massachusetts as a center for the alternative energy industry, and reducing greenhouse gas emissions.

Agriculture is a significant source of those emissions, but the typical, small to medium-sized New England farm tends not to have the means to make big capital improvements.

Gerry Palano, renewable energy coordinator for MDAR, says, "Producing energy onsite can help farms become more sustainable, and put farmers more in control."

There are several ways that farmers are taking control of their energy futures, many with Palano's guidance. Several Massachusetts dairy farmers are installing anaerobic digesters to convert crop and animal waste into gaseous fuel, electricity and fertilizer. Five farms in the central and western counties have teamed up under

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**The Carlsons mounted a farm-wide energy audit and improved the efficiency of many systems. They then established themselves as energy producers by installing a 220-kilowatt solar array on two acres of their land, making them the largest agricultural producer of solar energy in the Commonwealth.**

the name A. Green to share the design, management, and servicing costs of building and maintaining digesters on each of their independent farms.

Plant nurseries in Deerfield and Sudbury are upgrading the energy efficiency of their greenhouses and the systems that heat them. Laura Bartlett Abrams, president of J. P. Bartlett in Sudbury, says her new boilers are 20 percent more efficient than her old ones. She has recently installed energy curtains in the eaves of some greenhouses. Closing the curtains in summer will keep out excess heat and reduce ventilation costs. On cold winter nights the curtains will effectively lower the ceiling and retain heat. Abrams expects these curtains to save 57 percent of her overall heating and venting costs.

Three sets of cranberry growers in Wareham, Plymouth, and Bourne are pursuing permission to build wind turbines to produce power for use and sale. Keith Mann, a fourth-generation grower in Plymouth who hopes to build four turbines on his land, anticipates that selling power back to the utility “will help offset the ups and downs of the cranberry industry.” The last few years have seen record low prices for cranberries.

If his turbines go up, Mann could benefit from both the sale of renewable energy credits and sale of the power itself at a fair price. In 2008, Governor Patrick signed the Green Communities Act that, among other things, requires utilities to include certain percentages of renewable energy in their total supply. For 2011, the required minimum is 6 percent.

The Act also establishes “net metering,” which allows small producers, specifically including agricultural

facilities like Mann’s, to connect their renewable power systems to the grid of the state’s four electricity distributors. Those utilities are obliged to credit the farm suppliers for the power they feed the grid at near retail prices.

According to state calculations, these farm-based renewable energy projects together total more than 2,200 kilowatts of installed capacity and will reduce carbon emissions by 620 tons annually.

**G**ERRY PALANO BELIEVES FARMERS’ ENTHUSIASM FOR ENERGY EFFICIENCY AND DO-IT-YOURSELF GENERATION IS GROWING. The

Carlson’s consultant, Symantha Gates, has the same impression: “In general, people have been very receptive to this work and see it as a wave of the future.”

Frank Carlson says it will take a year of operation before he really knows what his investment in that future might yield, but so far the indicators are good. At the five-month mark, the solar array has generated about 43 percent of what it is expected to produce in a year, and that number does not yet included the sunniest months of June, July, and August. The energy efficiency measures also seem to be paying off. The orchard’s January electric bill showed that usage had dropped 26 percent compared to January last year.

*Kim Motylewski is a freelance writer based in Cambridge. This article originally appeared in the Spring 2011 edition of Edibles Boston, and is reprinted here with permission.*

# Frank Carlson appointed to new Food Policy Council

Massachusetts Governor Deval Patrick has appointed Frank Carlson of Carlson Orchards to a new Food Policy Council intended “to advance the goals of bringing healthy, local foods to all residents of the Commonwealth,” according to a press release. Frank will attend the Council’s inaugural meeting July 27.

The creation of the Food Policy Council and Carlson’s appointment were made April 7, during Massachusetts Agricultural Day at the State House. “This new council will be responsible for coordinating our statewide food and agricultural policy, and providing new, focused leadership for this critical sector of our economy,” said Gov. Patrick.

Following the passage of Chapter 277 of the Acts of 2010, an “Act Establishing the Massachusetts Food Policy Council,” the Council was formed to develop recommendations that will advance food system goals and align communication and coordination between state agencies to achieve these goals.

Increased communication and collaboration between state agencies will be an essential component to the work of the Food Policy Council. In partnership with the Food Policy Council, Gov. Patrick has asked Lt. Gov. Timothy Murray to lead and coordinate the state’s efforts to address hunger in Massachusetts.

In addition to focusing on ending hunger, legislation calls for the council to focus on achieving four goals: 1) increased production, sales, and consumption of Massachusetts-grown foods; 2) the development and promotion of programs that deliver healthy Massachusetts-grown goods to Massachusetts residents; 3) the protection of land and water resources needed for sustained local food production; and 4) training, retention, and recruitment of farmers and providing for the continued economic viability of local food production, processing, and distribution in the Commonwealth.

Department of Public Health Commissioner John Auerbach, Department of Transitional Assistance Com-



Bar Weeks

Frank Carlson

missioner Julia Kehoe, and Department of Agricultural Resources Commissioner Scott J. Soares are among the ex-officio members of the Council. Governor-appointed members, include John Lee of Carlisle, Manuel Costa of Winchester, Jeffrey Cole of Sutton, and Valerie Bassett of Jamaica Plain. Members are expected to elect a chair of the Council at their July 27 meeting, for a term not to exceed two years.

# Powell, Weeks to shift roles

After 15 years with the New England Apple Association, the last 13 as its executive director, Russell Powell is shifting his responsibilities in order to write a cultural history of apples. Bar Weeks, associate director of the association since 2009, will become executive director August 1. The change was approved unanimously by the association's board of directors at its June 7 meeting.

Powell will continue to serve as the association's chief editor, writing its weblog, [newenglandorchards.org](http://newenglandorchards.org), editing the quarterly newsletter, *McIntosh News*, and



overseeing development of the website [www.newenglandapples.org](http://www.newenglandapples.org). He will also write grants, do public speaking, and assist Weeks as needed during the transition.

Weeks will continue in her role of working with member orchards and managing the association's booth in the Massachusetts

Building at the Eastern States Exposition. She also serves as the association's food editor and chief photographer.

As executive director, Weeks will add media relations, budgeting, serving as liaison with other agricultural organizations and the New England state departments of agriculture, and strategic planning to her duties.

## 2012 wall calendar on its way

Member orchards by September will receive 25 copies of a new 2012 New England Apples wall calendar. All members in good standing by August 1 will be listed on the calendar's inside back cover.

The commercially printed 12"x12" calendar will feature stunning photographs of apples and apple growing throughout the year, with interesting facts and recipes.

The calendar is funded in part with funds from a Specialty Crops grant awarded to the association by the Vermont Department of Agriculture last year. In addition to orchards, the calendars will be distributed through a variety of channels.

The association's mailing address (P. O. Box 41, Hatfield, MA 01038) and telephone (413-247-9966) will stay the same, and Powell ([Russell@newenglandapples.org](mailto:Russell@newenglandapples.org)) and Weeks ([Bar@newenglandapples.org](mailto:Bar@newenglandapples.org)) will keep their email addresses.



"I feel this is the best way I can support the apple industry at this time," says Powell about his book. "There hasn't been a good book about apples in more than a decade, and my experience with the association and in publishing make me ideally suited to write a new one now."

He says the book represents "a great opportunity to educate consumers about apples and engage them with some of the challenges facing modern agriculture.

"I'm not going anywhere, though. I will continue writing for the association and will work closely with Weeks and the board to effect a smooth transition."

Powell has been doing research for the book since the beginning of the year, a process that will continue through the summer and fall. "If anything, growers will see more, rather than less, of me," he says, as he plans to visit a number of orchards gathering material for the book.

Tentatively titled *America's Apple*, Powell's book will look at America's most storied fruit from a variety of perspectives, with chapters on apples as food, the myth and reality of Johnny Appleseed, how apples are grown, harvested, and sold, and trends for the future. Photographs by Weeks will accompany the text, and there will be a photographic index of more than 100 apple varieties grown in the region.

Powell expects to have a publisher by fall, and complete the book by the end of the year so that it can be printed in time for the 2012 fresh harvest.

Weeks, who resides in Litchfield, Connecticut, is looking forward to her new role. "I am passionate about apples," she says. "It is an exciting time for the New England apple industry, and I look forward to continuing to serve the association and its members."