

Title:

A Potato Variety Evaluation for Culinary Performance

Project Leader(s):

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Abstract:

The purpose of this project is to promote NY developed and grown potatoes. People buy apples knowing what each variety is good for whether it is fresh, cooking or storage. Potato varieties vary in their sugar and starch content. Without knowing the cooking characteristics of each variety, growers are at a disadvantage when they market their potatoes. The project started out evaluating potato varieties for resistance to the potato leafhopper insect. It developed into an evaluation of culinary characteristics of the various NY potato varieties. With the emergence of the local food movement, the time for NY potatoes is right. We have worked with various cooking schools to evaluate the different potato varieties and the "Potato Culinary Use Guide" was developed. Once we had a handle on the culinary characteristics, we started promoting and educating chefs, culinary schools (at the high school and college level) and the public. The highlight of the year was an article in the NY Times newspaper about NY potatoes.

Background and justification:

Potato growers in NY have seen demand for their products steadily decrease over the years. Competition from Canada and the Northwest has resulted in a dramatic reduction in potato acreage and the number of producers. In the past twenty years, New York potato acreage has decreased from 38,000 acres to 22,000 acres. Over that same period, the dollar amount growers receive per hundred-weight has remained at right around five dollars. It is possible that within five to ten years, there will be no more wholesale potato producers left in NY. The generic round white potato just does not cut it anymore.

With more and more of our food coming from anywhere and everywhere, the public is eager to buy locally. Chefs have a catch when they can say their product is grown locally. New York has a huge population base very close by. Why do potatoes grown possibly 2-3000 miles away have an advantage in the market place? If price is the sole consideration, than potatoes grown in Idaho are going to win. If we can market our potatoes in different ways than previously, New York can begin to take back their market.

With the popularity of food magazines and all the cooking programs on television, the public has a heightened food awareness. New York growers need to take advantage of this interest. The way to do that is by variety name recognition and being able to market specific varieties by culinary performance.

Procedures

After distributing potatoes mainly to restaurants in 2008, the main focus for 2009 was culinary schools. Monroe Community College, Paul Smiths, Schenectady County Community College, Cobleskill, Alfred, The Culinary Institute of America (CIA), Mohawk Valley Community College and two high school level BOCES programs received six potato varieties to help educate their students on the culinary characteristics of potatoes.

Four farms in eastern NY participated in potato variety trials. Two of the farms received fifteen plus red varieties. The other two farms received a cross section of NY developed potato varieties. An additional potato variety trial was placed at the NY State Executive Mansion. Noah Sheetz is a strong supporter of local foods and is following the lead of the President Obama in having a garden at the mansion.

The Potato Culinary Use Guide and the Potato Cultural Use Guide were finalized. The Culinary Use Guide is meant for both grower and the public to understand what specific varieties do when cooked. The Cultural Use Guide is meant to educate growers on the cultural characteristics of the different potato varieties, insect/disease resistant varieties, spacing, fertilizer needs, storage characteristics, etc.

Each year, Cornell University plant breeding department plants various potato trials. In the past, their left over potato seed was composted. I learned of this and offered to distribute to growers the left over seed. This past May, I was offered 3700 lbs. of potato seed from plant breeding. An offer for free potato seed was sent out and 40 growers expressed interest in trying out a new variety or two. The seed was distributed in June.

Results and discussion:

The culinary schools were very enthusiastic to have such a powerful tool to educate their students about IPM, local foods, farm profitability and other agricultural issues. When possible, a local farmer was also brought into the culinary classes to discuss agriculture with the students. Often, it was the first time the students spoke personally with a farmer. Culinary students are the chefs of tomorrow and by educating them now, we are paving the way for increased locally grown usage.

The best way to show results is quote some of the educators and chefs who participated in the project.

Paul Wigsten, Produce buyer / Farm Liaison for the Culinary Institute of America

“Today, Integrated Pest Management, IPM, is more important than ever before. Growers can't afford to spray any more than necessary with the skyrocketing cost of materials. Moreover, the public is more concerned with pesticide residue and food safety in general. As the produce buyer for the Culinary Institute of America these are issues that I confront on a daily basis. I know that when I purchase produce from an IPM farmer I am buying safe product.

An interesting concept that has come about from the IPM program is the idea that consumers should buy potatoes by variety much like they do apples. Several chef instructors here at the CIA are testing eight types of potatoes right now to determine the best use or application for each of these varieties. This is very exciting work for me because it could potentially make my job much easier. When I know that a chef wants a good frying potato or one for mashing I can send to them the right potato for the job at hand.

The best thing about the program is the public awareness of IPM. Even five years ago those three letters meant very little to anyone outside of the farming community. Now the general public knows that a farmer practicing IPM is a good steward of the land and today that means a lot”.

Paul Rother, Instructor, Capital District BOCES (Culinary Arts Vo Teck)

“Thanks for the potatoes, my students learned a lot from them. I would like to let you know it is a relief to see someone talking the talk and walking the walk. What I mean is, a lot of people, chefs and restaurants talk about changing how they buy. Unfortunately it always comes down to what is easier. Recently I saw a potato display in a local food mart; it was some of the potato varieties that we played with. I was happy to see them in the store and I hoped the public appreciated that they were there.

As a culinary instructor I have an opportunity to work with young culinarians. It is at this level that I know ideas and current purchasing attitudes can be changed. In fact, it is the young people who are curious where our food comes from. It is this generation that can make the difference and they have a different perspective on how we should respect our local foods and rethink how we order and use our food in the future.

I experimented with several different types of potatoes. The students learned that different potatoes have higher water and sugar contents. One student commented on the flavor and freshness. Wow !!!!! That’s what I was hoping for. It wasn’t about the chips we were making, it was about the taste which is right here in our backyard, Thanks”

Noah Sheetz, Executive Chef at the NY State Executive Mansion

“We made the decision to source all of the food for the Mansion kitchen locally two years ago for several reasons. Economically it makes sense because money spent locally gets re-spent locally. Ecologically its great because there's less pollution involved in the transport.

Probably the best reason to buy locally is from a nutrition standpoint. Finding high quality products that are raised as naturally as possible is the most important consideration to us. We buy organic product when possible but price is always a consideration and its not always justifiable to buy high end organics.

Integrated Pest Management has provided a sense of food security for us - knowing that foods are grown with minimal levels of pesticides and insecticides. We owe a big thanks to the work and research of Integrated Pest Management specialists who work with growers to monitor pest activity and to determine when and how much to spray.

We've been fortunate to know IPM educator John Mishanec who works with growers and those of us in foodservice, on the other side of the food system equation. His work with potato survey research has exposed us to a whole world of New York potato varieties.

Today we talk to many different growers to find different potato varieties for different cooking methods. Its comforting to us to know that all the many potatoes that find their way to the Mansion's kitchen are grown as naturally as possible”.

Dan Barber. Stone Barns Restaurant

"The beauty of Integrated Pest Management is that it doesn't deal with pests; it deals with living systems. Whether it's new vegetable varieties, recommending methods to control flies or more efficient production practices, John has helped Stone Barns create a harvest that's healthy, abundant, and utterly delicious."

Growers participating in the potato variety trials as well as the growers who received the left over seed were excited to grow and see first hand how the various varieties performed on their farms. What was even better was the public acceptance of the NY varieties. When the growers identified the potatoes as NY varieties and gave the public information on their culinary characteristics, response was very positive. A grower from Orange County reported that he sold out of the NY potato varieties quicker than any of this other varieties.

A number of the vegetable vendors at the Schenectady Greenmarket, received NY potato varieties to try this summer. A “Potato Day” was held where the vendors highlighted NY potatoes and gave out the Culinary Use Guide. Vendors reported very favorable customer response and in some cases, selling out of particular NY varieties. All the vendors stated they will grow more NY varieties next season.

On February 9, I was invited back to give a talk on “IPM, agriculture and Locally grown” to the Eastern NY American Culinary Federation (ACF) awards meeting in Albany, NY. I have taken every opportunity to educate Chefs and other educators on the issues involved in locally grown food and potatoes specifically. The talk was warmly received.

As a result of the potato trials and working with the restaurants, newspaper coverage of potatoes has been very good. On October 14th, an articles on NY potato varieties appeared in the NY Times newspaper.

<http://www.nytimes.com/2009/10/14/dining/14spuds.html>

The NY Times reporter interviewed over 25 people as background for the article and did a very good job presenting a case for buying NY potatoes. As a result of the exposure, numerous requests for more information were received. Growers vending at NY City farmers markets reported selling out of NY potato varieties after the article appeared. These growers have told me they intend to drastically increase the amount of NY potato acreage for next season.

On April 6, I was again invited back to talk on “IPM, agriculture and Locally grown” at the New York State Restaurant Association annual meeting in Saratoga. Three varieties of NY potatoes were served with the dinner and NY potatoes were given out as door prizes to the chefs attending. It is important to take every opportunity to educate chefs on locally grown and NY Potato issues. Many good contacts within the food industry were made at the dinner.

The New York Potato Culinary Usage Guide” has been finished. Input from the various culinary schools and selected Chefs was used to rate the different potato varieties on their culinary properties. This will be a valuable tool for consumers as well as growers. Consumers, whether they are the public, produce buyers or chefs will be able to know how a specific potato variety will perform. Growers will find this especially useful, as they will have an extra marketing tool to be able to sell their potatoes by culinary use. We are having 25,000 glossy, color versions printed. The Empire State Potato Growers Inc. has agreed to host the Use Guide on their web site.

http://www.empirepotatogrowers.com/Documents/Potato_Culinary%20Use_Guide_10.pdf

The Empire State Growers Inc. will distribute the glossy copies to growers on request.

The “Potato Variety Cultural Use Guide” is finished and Prof. Tom Zitter has agreed to post it on Vegetable MD online, one of the most heavily visited sites on the web. This will be a companion to the “Culinary Use Guide”. The Cultural Guide includes insect and disease resistance information, storage information, planting, growing and other useful information that will help growers in their production of potatoes.

While it is difficult to know exactly how many growers in eastern NY are using NY potato varieties, I would easily guesstimate that at least half to seventy five percent of growers are using at least one NY potato variety. Most NY varieties are resistant to nematodes as well as other disease problems. Yields of NY potato varieties are also generally higher than other varieties as they were developed to suite our growing conditions. The culinary use information, combined with ecologically IPM grown techniques and the locally grown aspect have given NY vegetable growers a powerful tool to increase production and profitability. These are useful to all growers throughout NY State.

Project Locations:

The locations of potato variety trials were in Orange, Schoharie, Albany and Westchester Counties. Potatoes were distributed to growers in almost every eastern NY County. Culinary Schools who we worked with were located in Monroe, Schoharie, Clinton, Schenectady, Dutchess, Oneida and Albany Counties. This project benefits all vegetable producers growing potatoes in NY State.

Keywords

Leafhopper

Potatoes

Resistant Varieties

Cultural control