



Whitesbog Preservation Trust

NEWSLETTER

2nd Quarter

www.whitesbog.org

2010

Birthplace of the Highbush Blueberry - Historic Center for Cranberry Innovation

Spilled Wine, Cellophane, Whitman's Candy, and Blueberry Marketing

The Tru-Blu Blueberry Cooperative revolutionized the packaging of produce with the early use of cellophane

by

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Cellophane was a tremendous innovation when it first appeared. Never before was it possible to package products under transparent covers unless those covers were made of glass.

Cellophane was invented by Swiss chemist Jacques E. Brandenberger while employed by Blanchisserie et Teinturerie de Thaon (Bleaching and Dyeing of Thaon). It is said that in 1900, inspired by seeing a wine spill on a restaurant's tablecloth, he decided to create a cloth that could repel liquids rather than absorb them. His first step was to spray a waterproof coating onto fabric, and he opted to try viscose (a viscous cellulose solution made by treating cellulose with alkali and carbon disulfide). The resultant coated fabric was far too stiff, but the clear film easily separated from the backing cloth, and he abandoned his original idea as the possibilities of the new coating material itself became apparent.¹

It took ten years for Brandenberger to perfect his film; his chief improvement over earlier work with such films was the addition of glycerin to soften the material. By 1908, Brandenberger developed the first machine for the manufacture of transparent sheets of regenerated cellulose. Brandenberger was granted patents to cover the machinery and the essential ideas of his manufacturing process of the new film. Brandenberger named the new

film Cellophane, derived from the French words cellulose and diaphane (like diaphanous) (= transparent).²

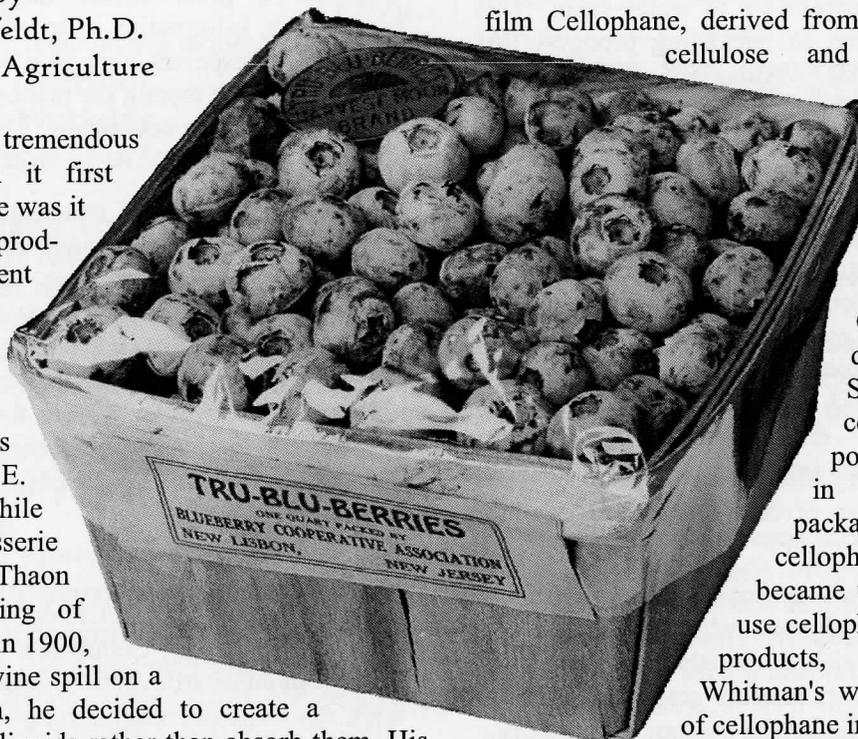
By 1912, cellophane was being sold for use in gas masks.^{1,2}

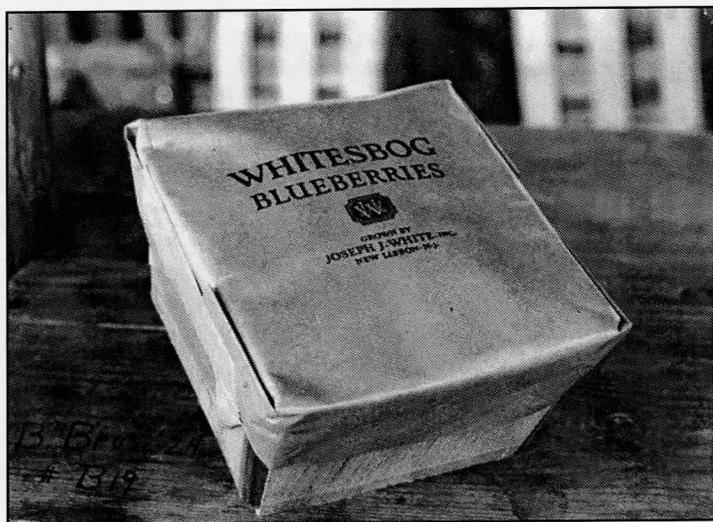
In the same year that Cellophane was patented, the Whitman's Candy Sampler was introduced to the public. The Sampler box included a collection of the most popular pieces of candy sold in the confectionery shop packaged under a covering of cellophane. Whitman's thus became the first in its industry to use cellophane to wrap its packaged products, and for many years, Whitman's was the largest single user of cellophane in America.³

In 1917, Brandenberger assigned his patents to La Cellophane Societe Anonyme (i.e. a public limited company) and joined that organization. Several years later, on December 26, 1923, an agreement was executed between the DuPont Cellophane Company and La Cellophane SA that licensed to DuPont the exclusive rights to its United States cellophane patents, and granted the DuPont Cellophane Company the exclusive rights to make and sell in North and Central America using La Cellophane's secret processes for cellophane manufacture. In exchange, the DuPont Cellophane Company granted to La Cellophane the exclusive rights for the rest of the world, the use of any cellophane patents or processes DuPont Cellophane Company might develop.²

Cellophane initially saw limited sales in the U.S., since although it was waterproof, it was not moisture-proof

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- it held water, but was permeable to water vapor. This meant that it was unsuited to packaging products that required moisture-proofing.¹ Although considered a shortcoming, this permeability to moisture was a plus for a produce covering, since it meant that the film would foster condensation only under the most extreme circumstances. DuPont subsequently hired chemist William Hale Charch, who spent three years developing a nitrocellulose lacquer that, when applied to Cellophane, made it moisture-proof. Following the introduction of moisture-proof Cellophane in 1927, the material's sales tripled between 1928 and 1930, and by 1938, Cellophane accounted for 10% of DuPont's sales and 25% of its profits.¹

Blueberry Marketing

In 1920, prior to the use of cellophane by J.J. White Company, Elizabeth White wrote:

"The picking is mostly done by the wives and children of our Italian laborers, who are paid 6¢ a quart. The berries are picked directly into ordinary quart berry boxes which are roughly graded according to the size and color of the berries on top. Each box is covered with paper. For the poorer berries this is plain, but the covers of the better grade carry our name and brand. The boxes are packed in the ordinary 32 qt. crates.

We have not as yet picked at one time a whole crate of any one of the varieties of blueberries selected for commercial fruit production. The majority of the berries marketed have been from the seedling plants under trial. These, being from selected parents, are much above wild berries in average size and quality. The fruit from each bush, however, is different from that of every other bush, and much of it is very ordinary."⁴

A few years later, several important factors converged: 1) a considerably larger volume of uniform berries was

available, 2) the Tru-Blu Co-operative Association had been formed to market New Jersey blueberries, and 3) the marvelous new film was available for packaging. In *Cranberries Magazine* (1936), she summarized the early use of cellophane on blueberries:

"You may be interested in the development of our cellophane cover. The quarts of the first crates, of blueberries shipped in 1916 were covered with brown paper squares which I cut from large sheets and fastened over the boxes with gummed paper tape much as our covers are fastened now. In 1917, we had the manila covers cut for us and printed with a special design advertising Whitesbog blueberries.

A few years later (ed.: approx. 1920?) Sidney Hutton saw a candy box wrapped in cellophane. He wrote a letter of inquiry to the candy manufacturer who, as a great favor, furnished us, as non-competitors, information as to where this remarkable, imported, transparent wrapping could be secured. So blueberries were among the pioneers of the products to be marketed under cellophane. The rest of the story is Association history."⁵

This is a case of considerable modesty, since it seems clear (*no pun intended*) that the Tru-Blu Cooperative Association was the first agricultural organization to use cellophane to cover produce of any kind! It was said that when blueberries covered with cellophane first reached the market, they were received with great favor. Not only were they among the biggest, bluest, most uniform blueberries ever seen, THEY ACTUALLY COULD BE SEEN! And we all know that, seeing is believing. ■

References

- ¹ www.wikipedia.org/wiki/Cellophane.
- ² Bellis, M. History of Cellophane Films. www.inventors.about.com/od/cstartinventions/a/Cellophane.htm.
- ³ www.russellstover.com/jump.jsp?itemType=CATEGORY&itemID=206.
- ⁴ White, E.C. 1920. Development of the Cultivated Blueberry (text of an oral presentation). Whitesbog Preservation Trust archives.
- ⁵ White, E.C. 1936. Beginning of Blueberry Culture. *Cranberries Magazine* (4):18-19.

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Newsletter

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Calendar of Events

August

- 28 Moonlight Walk** 7 p.m.
\$5 donation/person, reservations requested.

September

- 11 WPT Volunteer Workday** 10 a.m. - 3 p.m.
11 Whitesbog Village Tour 1 p.m.
\$5 donation/person
19 Quarterly Lecture Series 1 p.m.
\$5 members, \$7 non-members, by reservation. "J.J. White: The Man and His Legacy"; presenter Albertine Senske.
25 Moonlight Walk 7 p.m.
\$5 donation/person, reservations requested.

October

- 2 WPT Volunteer Workday** 10 a.m. - 3 p.m.
2 Whitesbog Village Tour 1 p.m.
\$5 donation/person
9 Cranberry Industry Tour 10 a.m.
\$10 donation/person, reservations required. View a modern wet-harvest and learn about the history and cultivation of cranberries in NJ.
10 Pinelands Discovery Festival 10 a.m. - 4 p.m.
Celebrate the history, ecology & unique culture of the Pinelands! Parking fee.
16 Cranberry Industry Tour 10 a.m.
23 Cranberry Industry Tour 10 a.m.
23 Moonlight Walk 7 p.m.
\$5 donation/person, reservations requested.

November

- 6 Whitesbog Symposium** 9 a.m. - 3 p.m.
A special day-long event featuring Whitesbog-related topics. Space is limited, reservations are required. Lunch is provided. \$20 members; \$30 non-members.

We are continually adding new programs and events. Check with us often at (609) 893-4646 or on the web at www.whitesbog.org. ■



Fest . . . The Best!

Thousands flocked to Whitesbog on June 26th to enjoy the 27th Annual Whitesbog Blueberry Festival, with nearly thirteen hundred cars breezing in and out of remote parking with the help of the men and women of the McGuire-Dix-Lakehurst Joint Base. The military exercise eliminated our traditional traffic jams, packed the airstrip with happy visitors and helped the Trust to reap record profits at the gate. If you missed the festival, you missed a great day!

We had an exquisite Model-T exhibit by the T-Crank Yankers of Central New Jersey, and wagon rides in our newly restored fleet of farm wagons, all thanks to the Pinelands Antique Engine Association who introduced us to the club and spent all spring replacing the floors, steps, rails, tarps and straw-seats of all the Trust's wagons.

Children were everywhere this year, composing poetry for "Miss Lizzy" in Suningive's garden with Paula Newcomer, learning to play the recorder with Ken Mayberg, enjoying the activities provided by PINES, and eating pies at the Blueberry Pie Eating Contest. A special thank you to Pointsett's Blueberry Farm who saved the day for us by accommodating our 'blueberry picking' families (our own blueberry field was hit by frost back in March leaving our bushes bare).

The blueberries also took center stage, with J.J. White, Inc. introducing its Centennial Project - fields restored and replanted with 'Elizabeth' blueberries to usher in the 100th anniversary of her pioneering work with Dr. Coville and the USDA.

The Whitesbog Preservation Trust Board of Trustees, members and volunteers offer our sincere thanks to the many organizations that helped us to make this year's festival such a success: **Brendan T. Byrne State Forest**, Department of Environmental Protection, Division of Parks and Forestry for their support and services prior to, during, and following the festival; **Pinelands Institute of Natural & Environmental Studies**, Burlington County College for the children's arts, crafts and activities, **Pinelands Antique Engine Association** for the fabulous engine exhibits and help with set-up & take down, **Pemberton Township Fire Company** for their first-aid assistance, **Pemberton Township Department of Public Works** for their traffic control support, **White Dotte Dairy Bar** for their famous ice cream & blueberry sundaes, **Browns Mills Burger King** for the ice that kept everything cool, and most of all, a special Thank You to the men and women of the **McGuire-Dix-Lakehurst Civil Affairs Unit** and the JB MDL Volunteer Program participants who helped out throughout the day. Without the generous support of our festival partners, the unique history of Historic Whitesbog Village might be lost to the

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pages of history. Many, many thanks for your ongoing commitment, dedication and service.

The Whitesbog Preservation Trust also thanks our very special 2010 Blueberry Festival Silver Sponsors: Joseph J. White, Inc., Pine Island Cranberry Company, Inc., David Lerner Associates, and DirectBuy of South Jersey; **Bronze Sponsors:** Red Lion Diner, Burlington County College, Deborah Heart & Lung Center, Dietz & Watson, Inc., Fredrick W. Gibbs, Esquire, Caroline's Blueberries, LLC, Sun National Bank, Threads of Hope, and The Kokes Organization; **Copper Sponsors:** New Jersey Blueberry Growers Association, Ocean Spray, and the White Dotte Dairy Bar.

A special thank you is due to Tyler Reynolds, our General Store keeper and Jersey Devil, who helped to judge the contest, pose for pictures and toured the festival for the afternoon in the 90 degree heat.

To everyone who helped to coordinate and manage the day by welcoming guests, parking cars, conducting lectures and tours, dipping ice cream, cutting pies, and selling books, blueberries, baked goods, plants, preserves, t-shirts, tickets, soda – THANK YOU for another Blue Ribbon Day! ■



Crafters and plant sales draw appreciative crowds looking for that special Pinelands item.



Visit our website: WWW.WHITESBOG.ORG or call: 609.893.4646



Quarterly Lecture Series
Sunday September 19 at 1 p.m.
J.J. White:
The Man & his Legacy
 Speaker – Albertine Senske
 An agricultural renaissance man, J.J. White was a mechanical engineer, a cranberry grower, a writer, a businessman, and a devoted father.
 Learn his story.
 \$5 members, \$7 non-members
 reservations requested

ANNOUNCING

THE 2ND WHITESBOG SYMPOSIUM

SATURDAY NOVEMBER 6, 2010
9 A.M. TO 3 P.M.

BLUEBERRY, CRANBERRY, PINELANDS,
AND WHITESBOG TOPICS
 SPACE IS LIMITED; RESERVATIONS ARE REQUIRED
\$20 MEMBERS / \$30 NON-MEMBERS
LUNCH INCLUDED

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