

## STATE OF MAINE- POMOLOGICAL SOCIETY



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THE 1<sup>ST</sup> ONE HUNDRED YEARS

1873 TO 1930

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We know that apples have been grown and eaten at least since the beginning of written history. It is recorded that Cato, who lived in the third century BC, noted seven different varieties. At the time of the colonization of America there were several hundred named varieties in Europe.

It is said that the first apples grown in New England were planted in 1638. Relics of trees and Orchards indicate that not long after that date apples were grown in Maine. There is reference to an old orchard near Fort Castine and one in Old Falmouth where, during the second French and Indian War (1688-99) Captain Brackett was slain by Indians who "had crept stealthily up into the orchard." The town of Old Orchard Beach was obviously named for a planting of trees, a portion of which still stood in 1770.

One of the first things a pioneer did was to set out an orchard. By "orchard" he seldom meant a field devoted to fruit trees but more likely a dozen or so trees planted along the stonewalls that divided his pastures. The majority of these early trees were grown from seed and therefore were natural fruit. Most of their apples went into cider anyway and for this use the inferior fruit was satisfactory. Grafting was occasionally practiced and chance produced a few trees with fruit of suitable quality for kitchen and table use. Little was known about the culture of fruit trees and less was published that would have been very helpful.

I gather my apples about noon on the day of the full of the moon, in the latter part of September or early October. Then spread them in a chamber or garret, where they lie till about the last of November. Then remove them into casks and boxes in the cellar out of the way of the frost; but I prefer a cool part of the cellar. With this management I find I can keep them till the last of May, so well that not one in fifty will

rot. I suspect that the day of the moon's conjunction with the sun may answer as well; but I have not had experience of it."

*Professor Samuel Deane of Bowdoin College 1790*

The first commercial nursery in the state is said to have been established by Ephraim Goodale some time between 1804 and 1812 in the town of Buckstown, now Orrington. He couldn't have done much business during his first years, however, as the Maine State Board of Agriculture report for 1827 indicates that there were virtually no apples in the Bangor area.

Kennebec County appears to have been the home of much of the early progress of the apple industry of the state. Systematic improvement began in 1797 when John Hesketh came to this country as head gardener of the Vaughn farms in Hallowell. This estate extended one mile along the Kennebec and westwards to Cobbosseecontee Lake, a distance of five miles. The Vaughn family had many different kinds of fruits and nuts on their farms and "sold upwards of one thousand dollars worth of trees and plants from their nurseries yearly, giving freely to all those unable to buy."

It is not too surprising that the early orchardists of Maine paid little attention to the quality of their fruit when we realize that cider mills in the early 1800's would buy all the apples they could get for sixty-seven cents a bushel.

As the market for fresh fruit began to challenge the cider market, the farmers of Maine began to pay more attention to the varieties that they raised. The Maine Horticultural Society, founded in 1847 by Dr. Ezekiel Holmes, Maine's first Secretary of Agriculture, did the first work in classifying Maine fruit, properly describing them and bringing them to the attention of pomologists in other states. Very few records of this society, a forerunner of the Pomological Society, can be found, but it is apparent that it had ceased to exist by 1860.

The 1850's had been years of great expansion in the business of fruit growing in the state. Great quantities of trees were imported from nurseries in Connecticut and New York. This period of enthusiasm was short lived, however. There were a number of reasons for this, not the least being the War Between the States. Another was that some growers cut down their trees with the idea that they could thus stem the tide of intemperance occasioned by the drinking of the cider so abundantly produced. As it was so picturesquely put in the 1867 report of the Maine State Board of Agriculture, they felt this was "the shortest means to dry up a tributary to the fearful river of inebriation." Such a slaughter of trees was bound to upset the industry. There had also been several cold winter especially 1856-57, which had killed many trees and these had not been replaced. Furthermore, although trees had been set by the thousands, they had been given little care. In fact, few farmers understood the fact that an orchard required any particular care.

There is this manifest advantage of the fruit orchard over all other crops, for while the labor required for the orchard is mostly confined to harvesting, the other crops require plowing, planting, cultivating, etc. and acre for acre, yield in return about 1/3 the value of fruit which can return a net profit of from \$100 to \$400 per acre. We would therefore suggest to every farmer; plant largely your apple orchards- They will pay.

- - *Dr. J. C Weston, Bangor* - - 1874

At a meeting of the State Board of Agriculture at Skowhegan on October 10 to 12, 1872, the idea of organizing a society of some sort to promote fruits and flowers in Maine was presented, and after considerable debate, it was decided to leave the idea with the following committee: Ziba A. Gilbert, East Turner, James A. Varney, Vassalboro. and A. L. Simpson, Bangor. They were instructed to report at the next meeting of the board. The committee invited the fruit growers of Maine to attend the next meeting of the Board at Winthrop, January 14 to 17, 1873. A considerable number of persons interested in the subject were in attendance.

Ziba A. Gilbert made a strong plea that the proposal be looked upon favorably, calling on our farmers to leave the old farming methods and to adopt a more forward looking attitude toward their occupation. He noted that the only change in agriculture in the previous 25 years was "that we harvest less abundant crops from the same old acre." He was quite forceful in reply to a questioner who argued that there were too many farmers in Maine already.

What? Abandon these rocky highlands when ships lie at our wharfs ready to transport the fruits of our orchards, which no other section can produce in such perfection, and which you and others like you are too faithless to grow?

- - *Ziba A. Gilbert* -- - 1873

On the second day after full and lengthy discussion, the following brief resolve was adopted: "That it is expedient to establish such a Society." The committee recommended that the society be known as the Maine State Pomological Society, and nominated the following officers:

Ziba Gilbert, President; George Woodman & A. L. Simpson. Vice-Presidents; George Sawyer, Secretary; J. C. Weston, Corresponding Secretary; Charles Pope, Treasurer; Executive Committee: the President and Secretary. ex officio and Samuel Rolf, James Varney, and Albert Noyes.

The report of the Committee was accepted by the Convention. The effect of this acceptance was simply to designate certain persons who might thereafter associate themselves and proceed to organize a society. Another committee

was appointed to procure an Act of Incorporation from the Legislature which, conveniently, was then in session.

The Maine State Pomological Society was incorporated in 1873 by an act of the Legislature approved February 17, 1873, and signed by Governor Perham on that date. Those listed as Incorporators in addition to the officers named above were:

Rufus Prince, J. C. Madigan, S. F. Percy, Hannibal Belcher, I. H. Phillips, Joseph Taylor, Harvey Counce, John Currier, William Swett, Henry McLaughlin, Calvin Chamberlain, Washington Gilbert, Hiram Chase, J. C. Talbot, S. L. Goodale and George O. Weston.

The Incorporators met on March 27th at Augusta. They voted to accept the Act of Incorporation and by-laws as proposed at Winthrop. They elected as the first officers of the Society those persons who had been nominated in January. They also elected one trustee from each county. These men were to represent the Society, accept membership applications, and provide "grass roots" contacts for the Society.

The young Society began at once an ambitious program. During the first year they sent delegates to the biennial meeting and exposition of the American Pomological Society at Boston, staged an exhibit of fruits and flowers in September, negotiated with the Legislature for and were granted a yearly stipend of \$500. The Society held the first of a long series of annual meetings the following January, and from the very first they were concerned with the relative merits of the numerous varieties of apples then grown in Maine.

The greatest fault I find with the Baldwin is its tendency to winter kill every six or seven years, and its habit of overbearing alternate years when fruit is so abundant as to render it almost unprofitable. Its symmetrical form and brilliant coloring are its only good qualities. A majority of the fruit has a bitter, disagreeable taste. Notwithstanding this, so long as people blindly associate something good with red and yellow fruit, so long must we grow red and yellow fruit, even at the expense of quality.

- - Alfred Smith. *Monmouth* - - 1875



## CATALOG OF APPLES

Also at this first meeting of the Society, a committee was appointed to prepare a catalogue of apples and other fruits grown in the state. This proved to be a difficult task as there was considerable divergence of opinion among orchardists as to the names of specimens of apples exhibited, and it was not until the winter meeting of 1874 that the committee was ready to report.

This work filled sixteen pages in the annual report of the Maine Pomological Society. It evaluated 17 varieties of apples all grown within the state - as to size, color, quality, use, season, with further brief remarks following each description. The varieties on the list most likely 10 be seen a century later are Baldwin, Gravenstein, Northern Spy, Red Astrachan. and Rhode Island Greening. A few other names would be familiar, but many of today's growers would not recognize such varieties as: Benoni, Brigg's Auburn (native of Androscoggin County), Canada Reinette, Gloria Mundi, Maiden's Blush (a very handsome apple), Minister, Mother, Primate, Sarah (native of Wilton, a great bearer), Sweet and Sour (sections of sweet and sour alternating, grown chiefly as a curiosity). The list was republished once, in 1886, only slightly revised, and then the project seems to have been dropped.

It appears that during the 1870's nursery salesmen had been very naïve and had sold a great many crab apple trees in Maine by holding out promises of golden returns from them. This caused much concern on the part of thoughtful orchardists, resulting in a paper by Dr. Henry Reynolds titled, "Raising Crab Apples" presented at the 1878 winter meeting. After much discussion, a resolution was adopted condemning the practice of planting crab apple trees as being totally worthless for general cultivation and also as a stock upon which to graft standard varieties. It is apparent from many comments at these early meetings that nursery salesmen, tree agents, were frequent and not altogether welcome visitors.

The great want of Waldo County today, in the Pomological line, is not more trees, but better orchardists; not better varieties, but better care; not more tree agents, but more manure.

-*J.W. Land, Waldo County 1877*

Remembering the severe damage that orchards suffered in the unusually cold winter of 1856-57, there continued apprehension among orchardists that another winter of like severity might occur. As very little was to be found in the literature of that time concerning the hardiness of fruit trees, they turned to Dr. Thomas H. Hoskins, a physician living in Newport, Vermont, who had made a serious hobby of careful observation and note taking on the effect of different degrees of cold on the various varieties of apple trees in his orchard, which was located in as cold a spot as any in Maine. He had become

recognized as an authority on winter-hardy fruit trees. As a result of his search for apple trees hardy enough to grow in his orchard, he found the following: Duchess of Oldenburg, and Peach of Montreal safe at -38 degrees; the Snow, Wealthy, St. Lawrence, and McIntosh Red safe OIL -25 degrees or possibly -30 degrees. Dr. Hoskins' mention of the McIntosh is apparently the first reference to this variety in any Pomological Society meeting.

This Canadian apple, the McIntosh, is somewhat similar to the Wealthy except it is not quite so hardy, it being however hardier than the Snow, which it also resembles. The fruit is of the highest quality, larger than the Snow, but having such a similarity of flavor as to cause me to regard it as a seedling from that variety.

*Dr. Thomas Hoskins - - Vermont - - 1880*

During these early years, many papers were read at Pomological Society meetings covering all possible topics pertaining to fruit growing. The underlying message in many was that Maine farmers must accept new ways of doing things, and that apples deserve some care. One of the best of these presentations was by Samuel Boardman, then Secretary of the Society.

Our apples are now ready for the harvest - how shall they be gathered? Not as in the days of our boyhood, when two strong men went up into the trees and sent the bullet-like apples rattling down upon the stubble, rubbish and rocks, and over the backs of us youngsters who ran under the trees for "fun". Then cider was the chief end of the orchard and of some men too. Now the art of picking apples has become quite a study. Among the first requisites there must be a good supply of ladders - not your lumbering, backbreaking ladders, with sides four by four and rungs as large as a stick of stove wood but a strong, light, well built ladder, wide at the base, to stand firm, and narrow at the top in order to run in among the branches with no injury to the apples; a ladder which a man can take in one hand and walk off with.

Next you want a number of picking baskets - those which have the adjustable bail, like that of a water pail, are the best; because, in placing the basket of apples into the barrel the bail will tip back, allowing the basket to be inverted. These baskets should all be lined with old carpeting or sacking, so that the fruit may be placed in them without fear of giving them a scratch or surface bruise, which is sure to discolor and injure it.

*- - Samuel Boardman. Secretary - - 1885*



## *1<sup>ST</sup> ANNUAL EXHIBITION*

The Society's first annual exhibition of fruit was held in Bangor in September, 1873, in cooperation with the Bangor Horticultural Society. This show was greatly enhanced by many exhibits from the American Pomological Society Exposition just concluded at Boston. These exhibits were an education in themselves, including 140 varieties of apples from Polk County, Iowa, exhibits from California of mammoth -sized apples, pears, grapes, lemons and oranges, as well as large collections from Nebraska, Virginia, Delaware and Nova Scotia, among others.

At a meeting in 1875 the Executive Committee accepted an invitation to join the State Agricultural Society and to hold its third exhibit in conjunction with them on the 21<sup>st</sup> to the 24<sup>th</sup> of September at Portland. The departments of fruits, flowers, and vegetables, as well as farm crops were placed under the exclusive control of the Pomological Society. The total amount of premiums offered was \$1232. In reporting on this joint meeting, President Gilbert commented that he felt a separate meeting might be more helpful to orchardists.

The society continued, however, to hold their fall exhibits of fruits and flowers in conjunction with some horticultural group or state fair, first in Portland, then in Lewiston when new grounds were acquired and an exhibition hall erected. Later at the invitation of the Eastern Maine Fair at Bangor, exhibitions were set up at both cities. This plan resulted in larger premiums, and many more people could enjoy the excellent displays of the choicest fruits and flowers of the state.

The Society, during those early years, was having difficulty with finances, due in part to ambitious premium lists and small paid attendance at the exhibits. On several occasions it was necessary to scale down the payments of premiums. In 1878 the Treasurer's report showed an excess of liabilities over assets of \$178.55, and the treasurer found it necessary to borrow money, using as security the savings of the Permanent Fund. This fund consists of all Life Membership Fees with the interest only being available for current expenses.

At the January, 1885 meeting in Brunswick, President Charles S. Pope reported on the difficulty he had just encountered with the Maine exhibit at the International Horticultural Exhibition in New Orleans. Twenty-nine Maine orchardists had contributed twenty-seven barrels and ten boxes of apples plus one box of evaporated apples. This fruit was held in cold storage in Lewiston until November 20<sup>th</sup> when it was shipped by rail to New Orleans where it was supposed to be placed in refrigeration.

When Mr. Pope arrived in New Orleans on December 28<sup>th</sup>, the apples were still in the, same non-refrigerated car in which they had left Lewiston.

He sorted out the sound apples, in some instances obtaining no more than a peck and a half from a barrel, and with these he made up the display. Since the judging of the fruit displayed on the tables was delayed for nearly two weeks, we may expect the judges found a sorry lot. The displays of other states, however, were no better and, for the most part worse. He concluded his report with a silver lining\_ to the dark cloud; "We feel," he writes, "that a point has been gained by making known the superior keeping qualities of Maine apples." The annals of the Society shows that similar troubles befell Maine Pomological exhibits in Philadelphia in 1876, and in Chicago in 1893.



In February, 1888, President Pope called to the attention of the Society a bill presented to Congress by Hon. W. W. Hatch, entitled, "A Bill to Establish Agricultural Experiment Stations in connection with the Agricultural Colleges of the Several States".

How many apple trees were ruined a few years past by the forest caterpillar because we did not have anything at hand to meet the enemy with? And now the Trypeta Pomonella with no remedy to stop its ravages, and the disease commonly called "the apple scab" which has caused more damage in this section than all the insects combined. I fear some of us will be obliged to abandon raising Baldwins and several other varieties unless something can be found to check this disease. These and myriads of other destructive agents call for remedies which can best be furnished by an Agricultural Experiment Station.

- - *President Charles Pope - - 1888*

The Society contacted Maine's Senators and Congressmen urging them to support the Hatch bill. The active support given this measure, and the continued mutually helpful relations between The Maine Experiment Station and the Society may well be considered one of the wisest policies the Society ever adopted. In March 1889, the Trustees of the State College invited the State Board of Agriculture, the State Grange, and the Pomological Society each to furnish one representative as an advisory member of the Council of the Experimental Station. Secretary D. H. Knowlton was appointed as the Society's first representative on the Council.

Insecticides were in quite general use by the 1880's and there was much interest in them and in the precautions which should be followed in their use. The orchardist was warned that the spray materials available were so variable in strength it was impossible to give exact recommendations for their use. It was suggested that a single tree be sprayed and if its leaves were



damaged, the strength of the material be reduced, It is noteworthy that Arsenate of Lead Paste was first mentioned to our orchardists in 1889 with directions for its preparation. The materials were sugar of lead and white arsenic. The speaker especially recommended it as being very adhesive. The paste and later its dry form, Arsenate of Lead, became the most widely used insecticide in agriculture. Until after the turn of the century, however, many orchardists preferred Paris Green, and many others did nothing.

I sprayed twice, June 14th and July 11th, using one pound of Paris Green to 300 gallons of water and to each fifty gallons was added one gallon lirie whitewash, to prevent injury to foliage. The cost of spraying - including everything - was about 3 1/3 cents per tree. The ground under the row not sprayed was covered with wormy fruit while from the sprayed rows on either side, scarcely a wormy apple was to be seen. Fully 90% of the fruit on the sprayed trees was perfect, and there was no injury to the foliage when lime was used. There is no labor, that pays so well if the work is properly done.

- - *S. H. Daws, Harrison* - - 1892



The winter meeting in Cornish, February 17 & 18, 1892, was rather gloomy as the season just past had been disappointing. The members gave considerable time to a discussion of market trends and outlook. They discussed the growing competition from other apple sections, as well as from citrus and other fruits of the South and West. Many felt that there was a need for a hardy variety of very high quality and ability to yield profitably. In retrospect we see that the variety they were searching for was already well known and had been recommended by several orchardists and writers. In 1880, Dr. T. H. Hoskins had recommended the McIntosh highly. L. H. Blossom, a member of the Executive Committee, related his experiences growing the Mac and he, too, recommended it.

It was in 1885 that John W True of New Gloucester, later to serve five years as President of the Society, told the annual meeting that the Red McIntosh would, in his judgment, be a desirable variety for use in the type of small packages he foresaw. It was some sixty years before his idea of packages of "a peck or lesser sizes, the container to go with the apples", became the accepted method of packaging apples. The barrel slowly lost ground to the box and crate of various sizes and dimensions and then to apples sold by count and in plastic bags. The barrel finally disappeared from the market place in the early 1930's.

The Society periodically attempted to secure an increase in stipend from the Legislature, and in 1893 they voted to double the payment from \$500 to

\$1000 per year. On August 1st, after plans had been made on the basis of the increase, the following notice was received: "Through the neglect of the clerk in making up the appropriations for the Legislature, the \$500 increase under the act of legislation passed last winter was not included and will not be available." It was voted to carry out existing plans as far as possible.

In 1895, President True and Mr. A. E. Andrews were designated to visit Augusta and endeavor to secure the full \$1000 stipend as authorized by the previous Legislature. They were so successful that the Society received not only the \$1000 for the year 1895, but the additional \$500 for the years 1893 and 1894. A part of this money was applied toward the indebtedness to the Permanent Fund, reducing the debt to \$228.69.

In 1896 there were harvested in the USA 58,960,000 barrels of apples, in Maine, 2,080,000; so many that there was no place to store them. Some estimated that one-third of the apples grown in the 1896 season were not accounted for, having been left on the ground under the trees. The following year, on the other hand, was not a fruitful one and produced one of the smallest apple crops on record. The State of Maine did not produce as much fruit as was needed for home use. Tent caterpillars and too much rain were factors, as was the tendency of some varieties to bear a light crop in alternate years.

"Time works changes", Ziba Gilbert said in introducing his "New Plan of Work" in 1898. From its beginning, the Society had held an annual general exhibition of fruit, flowers, and other horticultural products and awarded prizes for the best displays, a large part of the Society's funds being expended to pay these prizes. It was believed that these exhibits served not only to educate but also to stimulate growers to greater efforts and to better products. Mr. Gilbert believed the autumn exhibitions had outlived their usefulness. He proposed that the autumn exhibit be abolished and instead a series of field institutes be sponsored. These institutes were to be along the lines of the twilight orchard meetings of some thirty years later, a tour of the orchard with the owner and one or two short talks by experts. Mr. Gilbert was highly regarded as a man of great experience and wisdom, and his report was adopted after committee study and recommendation; Mr. Gilbert was ahead of his time, however; field meetings were held occasionally in the following years, but the exhibitions and the lengthy list of prizes were continued until World War II.

The year of 1899, President Munson reported, was remarkable for the uneven distribution of the crop and for the severe attacks of the forest caterpillar. This was the second year in succession that Maine orchards were severely damaged by these insects, all the trees were so weakened that few fruit buds were formed, except in those orchards that were well cared for; these produced well. President Munson said, "I wish to emphasize in this connection that success in fruit growing collies only as the result of patient and persistent effort."

The Society as of March 9, 1900, was in good financial condition with bills paid and \$398.04 in the treasurer's hands. The Society had finished paying their indebtedness to the Permanent Fund, which totaled \$1390. There were 108 living life members and 25 annual members.

Notwithstanding the fact that the Society had experienced difficulties and even humiliation at three previous national exhibitions, the executive committee voted to exhibit fruit at the Pan-American Exposition at Buffalo during October, 1901. They appropriated \$250 of treasury funds and were granted a like amount by the legislature. Secretary Knowlton was employed to install the exhibit and make other arrangements for keeping up the display, he to receive two dollars a day for board and travel. This time the Maine exhibit was a great success, attracting much favorable attention and receiving fifteen medals. Of the 33 varieties included, those most familiar today would be: Baldwin, Ben Davis, Northern Spy, and Wealthy.

The Society tried to show the commercial apples of Maine, and made no effort to collect abnormal specimens. This business-like exhibit showed all the colors and beauty of the fruit of the far West with far superior flavor and keeping quality. We have never been able to understand why the people of Maine are so modest about showing their magnificent apples. There was nothing finer in Horticultural Hall.

- - *"The Rural New Yorker"* - -10/19/1901

For several years Secretary D. H. Knowlton had urged the Society to provide instruction in fruit and flower culture to the children of the state. In 1902 the first of what was intended to be an annual event was held in New Gloucester. Schools were closed for the first two days in May and instruction was given in the town hall to children who were brought in from all parts of town. Some of the topics discussed were: plant life, insects - friends and foes, how plants are propagated, and the care of the fruit tree for home and market. A similar school was held in Winthrop the following year, but the project seems to have been dropped even though the response both years was enthusiastic.

In 1902 Professor W. H. Munson spoke forcefully regarding the need for a grading and marking system enforced by state inspectors as was already being done in other states and in Canada. Professor Munson was genuinely concerned at the poor and even dishonest packs of fruit shipped abroad, and he was quite outspoken about such practices as use of the "short barrel" and "deaconing", or the use of "facers, chasers, and fillers".

The flour barrel which is largely in use in Maine is of good generous size and is perfectly legitimate, but it should always be thoroughly washed and dried before use. The flour dust upon the fruit is regarded

with suspicion by buyers and will often cause a cut of 25 or 50 cents in price. A few years ago the practice of spraying in this country was severely condemned in the English papers because the fruit in the London markets showed the poison on the surface of the fruit. Not poison at all, but flour from barrels not well cleaned.

*Professor W.H. Munson, Orono - - 1902*

Another outstanding address was presented to the Society in 1902, this by Professor F. A. Waugh of the University of Vermont, entitled "Ben Davis and What It Stands For". He explained that the reason that more Ben Davis had been planted in New England during the previous decade than all other varieties combined was very simple. "It will stand any amount of handling, storage, and misuse, and come up smiling and sound." He cited an instance where, some boxes of Ben Davis had been stored for sixteen months and when opened only two percent of the apples were not up to exhibition standards. He recommended this variety highly for sale to commission houses and especially for the export trade, but not for local markets.

If a man has a private customer whom he is anxious to please and to whom he wants to sell apples again next year, he certainly will not be so unwise as to give that customer Ben Davis this year. Quality cuts no figure in the sale of Ben Davis. When a buyer has no more discrimination than to buy Ben Davis, he knows (or cares) nothing for quality. Ben Davis is sold on its looks, not on its flavor. Quality does not count.

*- Prof. F. A. Waugh, Univ. of Vermont - - 1902*

Although the records indicate that no notice was made of the 25th anniversary of the founding of the Society, some passing notice was made by a few speakers at the 30th annual meeting held in Farmington in November of 1902. Four of the original 25 incorporators remained on the membership list. Two of them, quite remarkably, held the same offices as they had at the first meeting; Ziba Gilbert as President, and Charles Pope as Treasurer. Both remained extremely active in Society affairs throughout their lives. Mr. Gilbert's 12 years as President' (1873-1877 & 1901-1907) has yet to be equaled; and Mr. Pope served ten years as President (1883-1893) as well as 15 years as Treasurer (1873-1879 & 1897-1904).

One of the most successful of the early field meetings was held in Harrison on July 2, 1903, at the farm of S. H. Dawes. The Executive Committee met and stayed with Dawes the previous night. Arrangements were made for the membership to travel by train to Sebago and then by boat across Sebago Lake and along the Songo River to Harrison. They were met at the boat landing by horse drawn transportation and carried to the Dawes farm.

The winter of 1904-05 was severe and many trees were killed, especially Baldwins. It was noted by the secretary that where the trees had been well fertilized and cultivated the injury was much less. The value of cultivation and fertilization remained a frequent topic of discussion at Society meetings well into the present century. While most speakers favored careful care of the orchard, they varied from "regular use of the Harrar" as advocated by Solon Chase to careful fertilization. Too many farmers still listened, then went home and did nothing.

Ninety-nine apple trees out of a hundred in the good State of Maine need everything that ever would benefit any tree in the world. They need your nitrogen and your potash. and everything else. They are just crying for every thing that ever benefited a tree, no matter whether it is a saw or the plow, or any kind of fertilizer. Anything is a damned sight better than nothing. Most of them get nothing.

- - *E. H. Cook* - - 1904



The 1904 crop nationally was set at 50 million barrels which figured out at that time to an apple a day for every man, woman, and child in the country. Maine's crop was set at one million barrels, of which half were shipped out of state to market. Thousands of barrels were not harvested, however, due to poor prices. As so few orchardists had storage facilities, they were at the mercy of the buyers, who in seasons of heavy crops, could purchase for very low prices.

Between 1903 and 1906 much was said about construction of storages at every meeting of the Society. The first building constructed specifically for storing apples in Maine of which there is record was built in 1895 by F.H. Morse of Waterford. It held 600 barrels and had no cooling facilities, but held apples in the 32 degrees to 40 degrees range throughout the winter. It, like many other early storages, was built on the dead-air principle of insulation.

Our house is built with four airtight partitions, making three dead air space's on all side's. These were made by two thicknesses of boards with sheathing paper between. The work needs to be very carefully done, as upon the tightness of these partitions depends the success of the building. For common use we have an ordinary door large enough to back our double team into. But when we shut it up 1'01' winter we have an extra door with an air space in it.

-*FH Morse, Waterford*-- 1905

Many other early storages were cellars, either house or barn. Some were carefully insulated like the Morse building, but many were simple stone and earth cellars where apples stayed cold but seldom froze.

Northern Spy's in my cellar will be in perfect condition the middle of next May- keep longer if you wanted them to. My cellar is not a warm cellar. It is a moist cellar - frost sometimes a little - if they do it won't hurt them any. All you have to do is to let them alone. The man was at my house the other day who took them the last two years and he said to me, "Why, they are in as good storage here as any place in Boston." Ain't going to be fit to eat till along in April or May, and when we get at them they are good easy eating, I can tell you that.

- - *Solon Chase, Them Steers, Tumer - - 1905*

There were few other reports of specific construction, and although houses in Nova Scotia and Vermont using ice were described, none in Maine were mentioned. After 1906 the construction of storages was encouraged in Presidential addresses and reports from the College and Station staff, but little seems to have been done for several years.

The 1906 summer meeting was held on August 21st at the University of Maine, Orono, allowing a group of 150 orchardists an opportunity to view the campus and experiment station. During this period and for twenty years thereafter the Society frequently held discussions and demonstrations of the method of making Liquid Lime Sulphur at home.

Lime Sulphur was first used as spray for apple trees in Fresno, California in 1886. The material was a sheep dip borrowed from a neighbor.

- - *Dean Robert F. Owndler, Jr., University of N.H - - 1948*

Thinning as an orchard practice was beginning to be discussed at this time. It was not recommended as a standard policy but considered wise for certain varieties especially Baldwin and Greening, and then only on those trees where the apples are within reach; not on the Sutton, for instance, which "goes up like a Lombardy Poplar".



In 1907 the Pomological Society together with representatives of other agricultural organizations urged the Legislature to purchase a farm to be

located in the apple growing section of the state. Although there was practically no opposition to this idea the Legislature tabled the bill and never voted on it.

The matter was left to Dr. E. P. Turner to bring before the Legislature of 1909. This he did and with the help of a large number of interested members we got the bill passed, and we have now Highmoor Farm. We are today just as much interested in it as we were a year ago, but perhaps interested in a different way. Last year we were interested to get the farm; this year we are interested to see what we can get out of it.

- - *W. J. Ricker. Secretary* - - 1909

On October 7, 1909, the first of many field days was held at Highmoor Farm. According to the records of the Society it was the largest and most productive field meeting held up to that time.

In 1912 delegates were appointed to the Maine Federation of Agricultural Societies. This Federation was formed to act as the voice of Maine agriculture before the Legislature and at the University. This proved to be an effective and efficient method of carrying the agricultural story to the people and thereby building support for agricultural programs. Also in 1912 the Maine Pomological Society at the annual meeting in Portland entertained for the first time the New England Fruit Show.



As a result of the impressive showing made by Maine orchardists at the New England Fruit Show held in Boston in October, 1909, Mr. James J. H. Gregory, a well-known seed man from Marblehead, Massachusetts, gave to the State of Maine a \$1,000 first mortgage bond. He stipulated that at five-year intervals the interest should be paid to the orchardist who could show to a committee the most excellent orchard of one acre or more grown on his own land, of trees of his own selection (the Ben Davis excepted) five years from setting. This generous offer induced others to contribute additional premiums amounting to \$600 for the first contest, which was entered by 178 Maine growers.

The total number of varieties set was 45; heading the list was Stark which was planted in 50 orchards, followed by McIntosh in 49. Planting distances varied from 6 x 6 to 40 x 40. In 1913 the orchards were prejudged by A. K. Gardner and H. P. Sweetser, and the number of competing growers was reduced to 60. These orchards were again judged in August, 1914 for the final standing. Mr. E. N. Hobbs of Hope was awarded first, followed by E. W. Dolloff of Standish and F. H. Morse of Waterford.

The second contest was called the Carleton Contest and was judged in the same manner in 1919. Walter Warren of West Baldwin was declared winner followed by Joseph Wiley and Perley Batchelder both of Naples. Although a third contest was announced the records do not indicate it was completed or that any other contests were held.

At the 1914 annual meeting the executive committee was expanded to include the Treasurer and First Vice-President as ex officio members in addition to the President and Secretary who had been so designated from the beginning. Wilson Conant in his address as President recommended that a committee be selected to petition the Legislature for funds to provide a cold storage at Highmoor Farm for experimental purposes. This was done and the bill was presented but poorly supported. It was several years before money was provided for a storage plant at Highmoor.

The problem of selecting the best varieties for Maine continued to be a major topic at Society meetings. The McIntosh was gaining some favor but was considered too perishable to be set extensively until the 1920's. Throughout the 1920's Maine orchardists continued to search for the apple. One unnamed grower was reported to have 147 different varieties of apples on his farm. Baldwin's and Ben Davis continued to be the major varieties grown in Maine.

In 1915 a visitor from Virginia urged Society members to concentrate on the varieties that "are tried and proven in Maine".

It would be foolish for us to grow Baldwins in competition with you. I think it is equally foolish for you to grow Ben Davis which needs a longer growing season than you have in Maine. Our Virginia Ben Davis has the same delightful sawdust flavor 'as' those you grow in Maine. I don't know as the quality is any different, but it grows to a larger size and has good color (in Virginia). For selling in hot climates, for putting on the market in late spring, after other and none desirable kinds have gone, the Ben Davis, if grown where it reaches its own peculiar standard of perfection has a distinct place.

- - *S. W. Heeller. Virginia - - 1915*

In 1917 the Florists were invited to hold their annual meeting with the Pomological Society, and in 1918 the Diarymens Association also joined with the Society in holding their annual meetings.

At the 1919 Fruit Show for the first time seedling apples developed at Highmoor then contained 1500 trees from which they hoped to develop new varieties. Considerable work was being done during this period, but these Highmoor varieties were never commercially successful.

During the post World War One period each year's report stressed the desirability of local Fruit Growers Associations to assist members by cooperatively buying and selling fruit. The Maine Fruit Growers Exchange



was organized primarily to assist local associations in the better distribution of their products and to bring about a better spirit of co-operation in the different sections of the state. It probably made its greatest contribution (to the growers of Maine by enabling them to pool their orders for supplies and thereby increasing their purchasing power.

Pollination studies at Highmoor during the late teens proved that all major Maine varieties of apples are self-sterile, especially Mac, Ben Davis and Spy. After extensive experimentation it was found that most varieties cross-pollinated readily except that Baldwin received better than it gave.

*The Baldwin used as female set with all other varieties of pollen. This may be one reason why Baldwin is' such a good yielder in New England. To insure complete pollination, plant varieties which are cross-fertile and have about the same blooming time. In case an orchard 'is already planted to a solid block, and does not bear well, it appears logical to top-work part of it to a variety which is cross fertile with the original variety. This experiment is being tested at Highmoor where a Ben Davis orchard has been top worked with McIntosh which is very fertile with Ben Davis.*

- - Wilson H Conant, Experiment Station Council - - 1920



In a detailed study entitled "Ten Years in Maine Orchards" published in 1934, the Extension Service outlined the dramatic changes that took place between 1922 and 1932. The advent of ships with cold storage facilities exploded the myth that the salt-water ride improved the Ben Davis. When the British consumer was given a choice of several varieties, the market for Ben Davis and Stark was ended.

Unfortunately an apple grower cannot adjust his crop to sudden changes in market conditions as can the farmer who raises annual crops. The answer for orchardists throughout New England was top working, or grafting. Extension representatives developed an approved list of apples with market potential which became known as the "New England Seven" -- McIntosh, Delicious, Spy, Baldwin, Gravenstein, Wealthy, and Rhode Island Greening. This list received the endorsement of the Pomological Society, and of many other agricultural associations, but in Maine the major emphasis both in top working established orchards and in setting new trees was placed on the McIntosh.

During the 1920's, 460 demonstrations of grafting were held in Maine, and 1068 growers signed up in a variety of contests. Dan Shaw of Sanford was the state champion, having top-worked 683 trees of inferior varieties to McIntosh. Arthur Thompson of New Gloucester was second, and Everett Sturtevant of Winthrop was third. A total of 33,541 trees were top-worked in

Maine during this decade, more than in the other five New England states combined. Over 80% of these were grafted to McIntosh.