

# THE FIRST NINETY YEARS

# HISTORY OF THE MARYLAND STATE HORTICULTURAL SOCIETY

Arthur H. Thompson

#### DEDICATION

No history is without its heroes. This account is dedicated to two of ours

- EUGENE C. AUCHTER, administrator, scientist, teacher, motivator, whose far-sighted leadership was to influence teaching, Research, and extension in Maryland horticulture for generations.
- ALBERT F. VIERHELLER, extension specialist in pomology, teacher, leader, and tireless secretary of the Society through 33 turbulent years.

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#### THE FIRST NINETY YEARS HISTORY OF THE MARYLAND STATE HORTICULTURAL SOCIETY

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#### BACKGROUND

Societies are formed as a result of the coalescence of a number forces, often only after a considerable period of time. of The roots of the Maryland State Horticultural Society are buried deeply in the history of fruit growing in this country which began with apple production for cider making in the early colonial period. So important was cider this commodity was used as a medium of exchange through the 17th century and into the 18th. Early in this period peach production commenced, based on the planting of seedling trees for the making of brandy and the feeding of hogs. There is nothing in the pages of history to indicate that these early orchards were anything but small ancillary plantings on the poorest land on the farm, usually pastured with livestock, untended, totally secondary to the main business of livestock and field crops.

Commercial fruit production in Maryland began with the peach. While named cultivars of peaches were known since the Revolutionary War, seedling orchards continued to be planted right up to the 19th For example, an orchard of 20,000 seedling trees was century. planted in 1800 in Anne Arundel County, the fruit destined for brandy. Yet, in that same year, Baltimore was "known as the best market for peaches in America," so obviously grafted trees were established in the area. Perhaps modern peach production for fresh market got its first visibility when a Philadelphia grain merchant named Cassidy planted an orchard of 50,000 trees in Cecil County in 1830. The enterprise was successful, fruit being sent to market in wagons and sailboats from Cassidy's Landing on the Sassafras River. The Cassidy orchard ushered in an era of expansion in peach plantings on the upper Shore. In 1832, Reeves and Ridgeway began planting peaches at Delaware City, and they soon had 110 acres of During the same period John Reed of Kent County, Delaware, trees. built up an orchard of 10,000 trees of the cultivar Red Cheek Investments expanded, Melocotons. soon illustrated by the development of Major Philip Reybold who began planting peaches along the Sassafras River in Kent County; by 1846, he had 1,090 acres of peaches under cultivation. In 1848, the Reybold Orchard shipped 80,000 baskets of peaches "with steamboats constantly arriving and departing from Cassidy's Landing for New York, Boston, Philadelphia, nearby markets." In the decade from 1850 to 1860, many and steamboat wharves were built and improved, as peach plantings produced more and more business on the Bay. In 1856, Colonel Edward Wilkins began planting peaches along the Chester River in Kent County, and soon had 1,500 acres under cultivation. So much planting took place in Cecil, Kent and upper Queen Anne's Counties that "there was a continual forest of peach trees all along the

water courses of these counties, extending back from one to two miles from the water." The Civil War halted the expansion temporarily, but thereafter peaches were planted further inland on the Shore, especially as the Delaware Railroad was built through that State. In 1880, it was estimated that peach trees in Delaware and the upper Shore counties of Maryland totaled "from 7 to 10 million trees," and by 1887, Kent County, MD alone had 1 1/2 million peach trees.

But disaster was at hand and spreading in the form of peach yellows, now known to be a virus disease and highly contagious. Yellows was first described by Judge William Peters in a paper given at the Philadelphia Society for Promoting Agriculture on February 11, 1806. The causal organism was unknown, yet, curiously enough, Judge Peters indicated in his paper the only known means of control - destroy infected trees promptly. Yellows spread so rapidly in New Jersey that in 1817, William Coxe wrote in his "Fruit Trees" that this is "a malady which no remedy can cure nor cultivation avert." He found yellows so devastating that "In New Jersey the peach belongs to the past." After the Civil War the upper Eastern Shore of Maryland and northern Delaware became the leading peach producing district in the nation, and it was into this area that yellows moved from New Jersey. Yellows was so destructive that by 1890 the peach orchards of Cecil County were gone. Kent Island, once a vast peach orchard, was now growing field crops, strawberries, and several vegetable crops, especially tomatoes. The impending destruction of the great peach industry galvanized action leading to the organization of the Peninsula Horticultural Society in 1886, which had its first meeting in 1888. While this society embraced all interested horticulturists in Delaware and the Shore counties of Maryland and Virginia, peach yellows dominated discussion at the early annual meetings. For example, the report of the Chairman of the Committee on Peaches covers 10 pages in the first annual report of this society. At that first meeting the society adopted a resolution which read, "Resolved, that a committee be appointed to frame a law compelling every peach grower, under penalty, to destroy every peach tree affected with the disease known as yellows, immediately upon its discovery, and present the same to legislatures of Maryland, Delaware, and Virginia, and endeavor to secure its passage by those bodies." President of the Peninsula Horticultural Society during its first two years was J. W. Kerr, Denton, who was to serve later as the sixth president of the Maryland State Horticultural Society in 1903.

While apples had been grown for cider from the beginning of colonial days, about the middle of the 19th century, small plantings for non-cider purposes were established with peach enterprises in the eastern counties, and planting gradually spread to central and western Maryland as well. However, commercial plantings of consequence in Western Maryland counties had to await improvements in transportation, especially railroads. Thus apple production was established, if tenuously, at first entirely as secondary ventures on the poorest land on the farm. Until apples as a cash crop could be established, orchards would continue to get no husbandry, not even pruning of any kind. Yet, slowly this fruit emerged as an alternative on the farm, and gradually apples of named cultivars began to appear in local markets throughout the state.

Perhaps the fact that yellows did not affect the apple gave some emphasis to the possibility of apples as an alternative to the peach. But, interestingly enough, the apple was already threatened with disaster before production of the crop got under way, this in the form of an insect - San Jose scale. This insect was first reported about 1891, but undoubtedly was abroad well before that. Scale is destructive to both apple and peach, and while the organism was known and visible, as compared to yellows in the peach, the only known control was fumigation, a procedure requiring a tent over the entire tree to achieve control. Obviously this was impossible for the large apple trees of the time, so there was no effective control for San Jose scale in any but young orchards of small trees. Yellows had devastated the large peach industry along the Chesapeake Bay, and now San Jose scale threatened the very existence of a fledging but promising fruit industry. Called by J. W. Kerr "this dreadful horticultural night, this devastating tree leprosy", San Jose scale would conquer or be conquered, but no farmer could do it alone – concerted action with state support was absolutely necessary.

Such was the stage in 1895 when Charles Biggs, a lawyer in Sharpsburg, member of the legislature, and a fruit grower (10,000 trees, mostly peach, 3 miles south) decided to take action. He wrote a bill himself which had as the chief objective the suppression of San Jose scale, and presented it to the next meeting of the legislature. The bill passed the 1896 General Assembly, and, among other things, created the position of State Entomologist. The first man to hold this position was W. G. Johnson who was provided accommodations at the Agricultural College at College Park. While San Jose scale was the pest responsible for Johnson's job, his broad assignment included all insect pests of consequence in agriculture of the day.

In two seasons of work, Johnson found himself handicapped by the lack of organization of horticultural interests in the state. During those two years he began to talk to community agricultural leaders about setting up some kind of a state convention in Baltimore for the purpose of creating a statewide horticultural organization. He had precedent for this, for it was exactly how the Peninsula Horticultural Society had been formed 12 years earlier. Out of these contacts and discussions came an organizing committee comprised of Howard Davis, (Baltimore, chairman), Samuel B. Loose, Orlando Harrison, (Berlin), Robert S. Emory, (Hagerstown), (Chestertown), and Johnson. Agreement was reached on the specifics of a convention, and Johnson wrote an announcement that was sent to all newspapers published in the state, and went into a circular addressed to 3,000 individuals. The announcement, mailed January 1, 1898, read:

"On account of the presence of various insect pests and fungous

diseases, the most important of which are the San Jose scale and the peach yellows, in many orchards of the State, it has been deemed advisable, after consultation with many fruit growers and nurserymen, to hold a convention in Baltimore for the purpose of considering and recommending some appropriate legislation for the protection and preservation of our vast fruit and nursery industries."

"The rapidity with which these pests are increasing renders prompt and efficient legislation, looking towards their suppression and control, most imperative and absolutely essential to success in horticultural and agricultural pursuits. We therefore invite all horticulturists, nurserymen, florists, agriculturists, and others interested in the extension and preservation of our fruit industries to meet in convention at Pacific Hall, northeast corner Baltimore and Paca Streets, Baltimore, January 26 and 27, 1898. The session will begin Tuesday, 2 pm, and continue at the pleasure of those assembled. A programme for Wednesday evening will be announced later. It is urgently requested that all horticultural, agricultural, and allied organizations in the State should send delegates. Any letters of inquiry should be sent to the Secretary of the committee, who will give them prompt attention - W. G. Johnson, Secretary, College Park, MD."

This convention brought together the largest horticultural group ever assembled in the state. Charles Biggs was elected permanent convention chairman, and, after statements from Biggs and Johnson concerning the problems at hand, committees were formed to develop the two main thrusts of this convention, i.e. legislation to enlist state support to fight San Jose scale, and the creation of some kind of state horticultural association. Legislation was written and submitted to the General Assembly which passed it in the 1898 This bill created the so-called State Horticultural session. Department, and provided for a State Plant Pathologist and a State Horticulturist in addition to the State Entomologist position established two years earlier. President Silvester offered accommodations at the Maryland Agricultural College for locating personnel of the State Horticultural Department, promising "that the Agricultural College would do her part if the State Horticultural Department were located at College Park." And so it was that College Park became headquarters of the State Horticultural Department, but it is clear that the three positions had no official connection with faculty or staff of the Agricultural College. The committee deliberating a statewide horticultural association took the constitution of the Missouri Association, modified it to suit Maryland conditions, and, in this manner, formulated the first constitution of the Maryland State Horticultural Society (MSHS).

As originally constituted, the MSHS was led by a president, vice president, secretary-treasurer, and a vice president for each county in the state. This statewide representation was perhaps copied from the organization of the Peninsula Horticultural Society a decade earlier, but it reflects also the statewide interest in horticulture

at the time. Further, as originally conceived and organized, the MSHS was not a fruit growers' society even though fruit growing problems stimulated the organization in the first place. The scope of interests is best presented by listing the standing committees as spelled out in the constitution. They were as follows: Orchards, Vineyards, Stone Fruits, Small Fruits, Vegetables, Flowers, Ornamentals, Entomology and Ornithology, Botany and Plant Pathology, Fruits, New Nomenclature and Packing and Marketing, and Each committee chairman was required to submit an Transportation. annual report to the Society, as was each county vice president. Membership dues were fixed at \$1 per year, and a life membership was available for \$10. Clearly it was a man's world, for the constitution provided that "any lady may become a member by giving her name to the secretary." The first two meetings of the MSHS were held in Baltimore in December, 1898 and 1899. Funding developed as a problem immediately, particularly money to publish the first proceedings. It was decided to publish only presented papers, eliminate all discussions, questions, etc., and to solicit at least three bids for publication of that first proceedings, payment for which came largely from advertisers. In the second meeting it was decided to ask the General Assembly of 1900 to "incorporate the State Horticultural Society and make provisions for an annual appropriation for the publication of reports and other matters of interest to horticulturists." Early in general January the secretary drew up a bill providing for incorporation and for an annual appropriation of \$3,000. To assure passage, a letter was out to 3,000 individuals in the state (likely the same mailing sent list used earlier) urging support for this bill. The bill did pass with some modification, the annual appropriation was \$1,000 rather than the \$3,000 requested, and it became law with the signature of the governor on April 5, 1900.

Once change in governance was required in the bill, that setting up an executive board made up of the society president, vice president, secretary-treasurer, the president of the Western Maryland Horticultural Society\*, and the president or vice president of the Peninsula Horticultural Society (apparently fruit growers in Western Maryland already had an organization). No other reference to this group can be found in MSHS reports. Thus the MSHS attained legal sanction of the state and funds with which to defray costs of mailings of both society affairs and horticultural information. When one considers that this bill passed 14 years before the establishment of the Cooperative Extension Service by Congress, the appropriation to support communication was of vital importance to this fledgling society and to the horticultural industries of the state.

What was the first meeting like on December 14 and 15, 1898? The attendance "although not as large as was expected, was a very representative one." Each attendant was greeted with the following printed on the program:

"In assembling for the first annual meeting of the Maryland State Horticultural Society, we feel that we are entering upon a new era in the horticultural development of the state. By organization and cooperation, this industry can be made on of the most important of our resources. We have unlimited opportunity for development and with our ready means of transportation, we can compete successfully with growers of fruits, vegetables, and flowers from more remote places. We are at the very door of the largest food consuming population in the United States, and 8,000,000 or people within five hours of ride of Maryland are pleading for fresh fruit, wholesome vegetables, and bright flowers."

A synopsis of each paper presented serves to provide here the flavor and substance of this meeting. They are as follows:

PRESIDENT'S ADDRESS, Charles G. Biggs, Washington County

President Biggs reviewed the history of fruit growing in Maryland and the events leading to the establishment of the Maryland Horticultural Department and the MSHS. Biggs forecast the broadening of horizons of each horticulturist through the MSHS, yet pointed to members themselves as resources... "I assume that every fruit grower in Maryland is capable of imparting some information to his fellows, and also that each grower is sufficiently receptible to be benefitted by that information; and herein lies the paramount importance of exhaustive organization and cooperation."

THE AGRICULTURAL COLLEGE AND THE STATE HORTICULTURAL DEPARTMENT. R. W. Silvester, President, Agricultural College

A somewhat windy, yet pointed justification for the State Horticultural Department personnel to be housed at the Agricultural College, to interact with college and experiment station personnel on horticultural problems. Silvester correctly pointed out that the new arrangement would obviate conflicts between college and state department people which had already developed in other states. Silvester issued an invitation to hold an annual meeting of the Society at the College.

PEACH PLANTING IN MARYLAND. T. J. Shallcross, Kent County

A review of the peach industry of the upper shore of Maryland and Delaware, complete with specific cultivars grown. Shallcross concludes with a surprising statement, "While peach growing on the peninsula has been very profitable, and some persons have laid up considerable money, yet, three-fourths of the growers of peaches are not much better off than if they had raised grain crops. Peaches are all right and profitable if you can get a crop at least every other year, but a failure of three or four years in succession will ruin almost any grower."

THE POSSIBILITIES OF WINTER APPLE CULTURE IN THE BLUE RIDGE REGION. W. A. Taylor, Pomologist, USDA A discourse on potential for Western Maryland, concluded in the affirmative because good apples had been produced, markets existed, including an export market if Baltimore could be developed for export shipment. A third reason offered is astonishing from the viewpoint of today: "The heavy crop or bearing year of this region usually occurs when the crop of the country at large is small, and better prices are therefore obtained than are had in most American apple growing districts." Winesap, Ben Davis, and York Imperial were held as the "safest" cultivars to plant.

WHAT WE HOPE FOR. E. A. Seidewitz, Baltimore

A florist, Seidewitz indicated florists had been organized nationally for 12 years, locally for 10 years. Thus, this branch of horticulture preceded the fruit growers in organizing for mutual benefit. A promotional speech, this one dealt on advancing floriculture rather that the specific problems of greenhouse production. He told his audience that fruit and vegetable growers "cater to the grosser taste of man", while florists "appeal to the higher nature of man."

RELATIONS BETWEEN THE FRUIT PRODUCERS AND THE CANNING INDUSTRY. M. O. Shriver, Baltimore.

A long paper on cannery requirements for raw product of peach, pear, tomato, and strawberry. All were already important in Maryland canneries as was the oyster which was used to employ canning facilities in winter. Scale of the canning industry is found in Shriver's closing statement in which he estimates that every fifth wagon on Pratt Street in Baltimore throughout the year is connected with the canning industry - either hauling raw product to or processed product from the factories.

REPORT OF THE STATE PATHOLOGIST. C. O. Townsend, College Park

A report on diseases of fruit and vegetable crops of the state, current knowledge of each, and control measures if any existed. Orchard inspection for yellows commenced in 1898, inspections completed in 300 orchards on 500,000 trees during the season.

REPORT OF STATE ENTOMOLOGIST. W. G. Johnson, College Park

Johnson reported San Jose scale "completely under control in the state", a false claim illustrated by annual Society reports for the next ten years. This insect was still the most feared; orchard inspection for scale continued, and, by law, all nursery stock produced in the 46 nurseries in the state must be fumigated to control scale. Other insects of consequence include pear psylla, codling moth, peach tree borer, and curculio. Office burdened with paper work including responding to more than 2,000 letters, and "compilation of bulletins and records, and special articles for the state press." SOME OBSERVATIONS ON THE TRUCKING INTERESTS OF MARYLAND. Richard Vincent, Jr., Whitemarsh, Baltimore County

A rambling discourse on the vegetable industry of the state, present and potential. In Vincent's view, too many vegetable growers were farming too many acres, producing inferior quality of vegetables for markets willing to pay for good produce.

PAST, PRESENT, AND FUTURE OF THE KIEFER PEAR. J. S. Harris, Kent County

The leading pear of Maryland, Kiefer was sold as fresh fruit and was an important raw product of canneries following tomato season. Harris gave the history of this cultivar and details on soil and management requirements. In Kent County, it was estimated that less than 20 per cent of extensive Kiefer plantings had reached bearing, leading Harris to suggest that Kiefer had "attained to a dangerous popularity."

PICKING AND MARKETING THE PEAR. R. S. Emory, Kent County

Emory grew "fifteen varieties or more" or pears, and had found years earlier that as his tonnage increased, prices declined for pears. This led him to experiment with ripening pears before shipment, ultimately to construction of a "ripening house" for his pears where he concentrated on ripening off-the-tree those cultivars responding to the treatment.

THE PLUM AND ITS CULTURE IN MARYLAND. J. W. Kerr, Caroline County

An eloquent discussion of European, Japanese, and native American plums by the man most interested in this fruit. Kerr found only native sorts acceptable, held out the hope the hybridization with Japanese plums would ultimately produce cultivars satisfactory for Maryland.

SMALL FRUITS. R. L. Gulick, Dorchester County

Strawberry cultivars and culture discussed at some length, with mention given to raspberries, blackberries, gooseberries, and grapes.

START RIGHT AND KEEP RIGHT. Orland Harrison, Worcester County

A treatise on the management of a nursery producing fruit trees, strawberry and asparagus plants.

THE EARLY YEARS 1898 - 1917

In reviewing 90 years of MSHS history, it seems to the writer that the Society experienced distinct vicissitudes in that history, periods quite different from one another in many respects, part of

that difference being in the people themselves, but also in transportation, and in advances of many kinds in all of agricultural And so this history begins with the first 19 years, a production. time when the Agricultural College was growing, when the Experiment acquire capability to do something for Station began to horticulture, when the Cooperative Extension Service was created. was a period characterized by constant promotion of Maryland It horticulture, largely through exhibits, and of endless self-congratulations on the bounties of Maryland soils and climate. could be called the exhibit era because It of the great horticultural product exhibits set up to accompany each annual meeting through 1916. These were dynamic years of enormous change from the hand pump to the high pressure sprayer powered by an internal combustion engine, from the horse and mule to the tractor and motortruck, from no spraying at all to a regular spray schedule, from the marketing of substantial crops of inferior, upgraded fruit to standardized packs. But above all, it was a period when the MSHS of age, when the Society tackled enormous problems came in production, packaging, marketing, and transportation, which could be solved only through concerted, collective action. The MSHS was created out of a need, and the Society functioned in that need from the very beginning.

The MSHS began as a society for all horticulturists of the state even though fruit men and fruit problems stimulated the formation of At the first meeting in 1898, the Society in the first place. took place concerning changing the name and the discussion constitution in such a way as to embrace all agricultural interests of the state, and not just horticulture. A resolution to that effect was introduced by James Baker, Kent County, part of which called for a committee appointed by the president to study the The committee so appointed discussed the issue with members matter. during the following year, and after deliberations of their own, declined to recommend that either the name or the constitution be They found that both "now in force are liberal enough in changed. wording to admit all the general agricultural elements of the State in its broadest sense to membership." But annual programs from the beginning were heavily oriented to orchard problems and information in fact. However, other aspects of horticulture were - dominated, recognized, especially program items in vegetable crops, including individual papers on production of cantaloupes, tomatoes, sweet potatoes, asparaqus, vegetable cultivars, and several papers on truck crops in general. However, in 1918 the vegetable growers of the state formed their own association, and it is likely that the vegetable interests of the Eastern Shore were always better served by the Peninsula Horticultural Society. Landscaping the rural home was the subject of papers at several meetings, but florists as producers got virtually no space in the program despite the fact three presidents were florists. Likely this was a reflection that of the fact that the florists of the state had their own association some years before the MSHS was created. Forestry came in for some attention, reaching an apogee in the appearance on the 1909 program of the great Gifford Pinchot, Chief, U.S. Forest Service. It should be pointed out, however, that the annual reports of the State

Entomologist and State Pathologist were comprehensive, and insects and diseases of all horticultural crops were discussed, including ornamentals. In choosing presidents, the MSHS departed from fruit growing in several instances. C. L. Seybold (1908) was a park superintendent in Baltimore, Morrison (1912) an estate manager, while Vincent (1910), Graham (1914), and Moss (1916) were florists. Indeed, while Vincent was president of MSHS, he was also the vice president of the Society of American Florists. The term of I. H. Moss in 1916 was the last for a non fruit grower, and in a real sense marked the end of any pretense that the MSHS was a comprehensive horticultural society. From this time on it was in effect and in practice a fruit growers' organization.

Membership in MSHS has always been encouraged. At the second annual meeting the secretary gave a pitch for the 1900 program a year later, and announced that "railroad and boat lines will give an exceedingly low rate to those attending the horticultural meeting." This announcement underlines the major effort required to attend the annual meeting, no doubt the highlight of the entire year for those who did. The third annual meeting had "a goodly number in attendance", but, strangely, the Committee on By-Laws submitted 10 who did. sections of by-laws in which the membership fee was dropped. After the adoption of these by-laws with no recorded discussion, anyone could join the MSHS by simply making application to the treasurer for membership. Obviously many did, for the 1902 annual reports lists membership at 2,500, "largely added during 1902." The attraction, no doubt, was to get on a mailing list to receive at no charge horticultural information and instructions which were available no other way. By 1904, the Society had 2,871 members, composition of which is revealing. Only 270 of these were out-of-state people, while Washington County listed 453 members, Garrett County, 90 members. yet Wicomico County from which the next president (W. F. Allen) would come showed only 30 members. This is likely a reflection of the importance of the large vegetable industry in that county, and the importance of the Peninsula Horticultural Society to that industry. Despite the enormous membership roll, registered attendance at the 1904 meeting was only 210, with an estimated total attendance of 240. These figures were characteristic of the times when the Society never registered 10 percent of the total membership at any annual meeting. Yet summer meeting attendance was usually large to phenomenal. At a two-day summer meeting in Berlin in 1906, over 500 were in attendance. This was to be exceeded in 1913 at the same site when "1,200 to 1,500 attended." In 1910, the Society had 1,700 on the membership roll, 150 of whom attended the winter meeting. Attendance was discussed at length at this meeting, some attention being given to having a closed meeting for which a \$1 charge would be made to attend, such as had been done by the New York Society with satisfactory results on membership. However, agreement could not be reached on this and no action was taken. In the spring of 1911, however, the executive committee reinstituted the \$1 per year membership fee at a time when the membership roll stood at 1,200. By the time of the winter meeting later that year the Society had 320 paid members, somewhat more than was expected from the spring action. The following year,

Secretary Symons reported that membership stood at "440 live members and no dead ones."

In 1906, the Society began eleven years of holding annual meetings in the huge Fifth Regiment Armory in Baltimore. It occurred to several in the Society that this space would accommodate more that just the MSHS, and so discussion was held for some time concerning inviting other societies to join in holding annual meetings of their own in the Armory during the same period, to achieve several objectives, one of which was to increase in the annual meeting. Thus in 1910, for the first participation time the meeting was held in affiliation with the Florists, Dairymen, Beekeepers, Cereal and Forage Crop Breeders, State Grange, and the Farmers' League. Each society met separately in different areas of the armory, and jointly for some evening sessions. This practice was continued annually until the formation of the Maryland Agricultural Society in 1916, with the MSHS, Crop Improvement Association, Dairymen's Association, and the Beekeepers Association Joining forces enabled the the initial affiliate societies. as societies to bring in notable speakers, to attract the governor frequently, and to further the development of agricultural resources of the state. The Maryland Agricultural Society was incorporated by law, and issued an annual report in hard cover including the annual reports of the affiliated societies involved, an arrangement which continued through the 1964 report. There is little evidence in the annual reports of the MSHS after 1912 of what the affiliation did for participation in the annual meeting.

The exhibit of fruits and vegetables became a centerpiece of the annual meeting of the Society, and it began early. At the second annual meeting in 1899, the secretary announced that an exhibit would be featured at the next meeting, and issued instructions for harvesting, preserving, and shipping. The Baltimore City Cold Storage Warehouse Co. offered facilities to hold fresh fruits in cold storage for exhibitors. Exhibits were stimulated in part by the desire of the Society to show the people of Baltimore what excellent horticultural products in Maryland farmers were producing. The exhibits expanded annually except in 1903, when the exhibit "was reduced due to a reluctance to disturb fruit in cold storage for the st. Louis Exposition." Beginning in 1901, the Society awarded "certificates of merit" for outstanding entries, and these eventually gave way to careful judging and the awarding of ribbons as was common at county and state fairs. In 1907, an unusual summer exhibit was set up at the Court of the States Exhibit Palace, Jamestown Exposition, on September 24, the day designated as Maryland State Horticultural Society day at the Exposition. A full day program was held with speakers from New York, Michigan, and the Maryland Agricultural College. T. B. Symons was in charge of the fruit exhibit at this unusual event. The Fifth Regiment Armory afforded 60,000 square feet of exhibit space, and soon the horticultural exhibits exploded into full-fledged horticultural shows, in addition to the usual fruit and vegetable exhibits. In the 1908 exhibit 1,400 entries from 200 exhibitors were on display, including 122 cultivars of apples, 26 of pears. Following the 1908

meeting, the executive board sent Secretary C. P. Close to Council Bluffs, Iowa, with "the best of the Baltimore entries" to exhibit at the National Horticultural Congress the following week. Close reported later that "the state of Washington was there with a carload of gilt edge apples and pears rubbed until they took on a piano-finish polish." Close entered 33 plates and won 28 ribbons, 19 of them firsts! With affiliated societies meeting in the Armory during the same week, the exhibit area became a show for all groups involved - including live cows to demonstrate milking machines. But the horticultural show dominated the scene, and the listing of entries and awards for all the various categories in the show took more than 20 pages in the annual report of the Society. The Armory was used through the 1916 meeting, but, due to war activities, was available for the 1917 meeting, and was never used again by the not Society. This brought to a close the exhibit era, for the Society was never again to put the time and effort into product exhibits. No doubt they had made their point with the public in Baltimore with the extravaganzas that had been staged for some years. After the war, attention would turn to exhibits of machinery and equipment of various kinds for fruit growers themselves. It was the end of an era.

The new MSHS had astute leaders, as illustrated by the scope of out-of-state speakers engaged for the annual meeting as well as for some summer meetings. Perhaps one of the most outstanding meetings in this regard was the third annual meeting in 1900. At this meeting, an outstanding cast of speakers was headed by the great Hyde Bailey of Cornell, billed as "the greatest Liberty horticultural expert this country ever produced", and now known as the "father of American Horticulture." Bailey's title "Modern Notions in Orchard Management" covered an astute presentation which even today reads well. In addition to Bailey, the program included J. H. Hale of Connecticut and Georgia, known as the "peach king." Hale was an outstanding grower who selected a peach in his own orchards to which he gave his own name, a peach still being grown today in some peach districts. Two USDA horticulturists, W. A. Taylor and M. B. Waite, were on this program, as was R. Morrill of Benton Harbor, Michigan, at that time one of the best-known, successful fruit growers of the upper midwest. Over the next few years, notable out-of-state speakers included F. A. Waugh of Massachusetts Agricultural College, S. A. Beach of Iowa State, L. R. Taft of Michigan Agricultural College, F. D. Gardner of Penn State, M. A. Blake of Rutgers, and U. P. Hedrick of the New York Experiment Station at Geneva. After the MSHS joined with other societies in the Armory, speakers of note were obtained, along with the governor, address joint sessions. Perhaps the most notable of these was to Governor Woodrow Wilson of New Jersey, whose speech in 1911 lacked what one might expect from a future president of the United States.

The subject matter of annual program speakers provides a running account of the problems and interests of the fruit growers of the state. Early on, general production practices took center stage. There was little mention of nutrition, or even of pruning, but thinning came up frequently, this to address the question - did it

pay or not? In the first years there was doubt about growing fruit in western Maryland, but all discussion of this nature disappeared when E. P. Cohill started Tonoloway Orchard at Hancock, an operation which quickly expanded to 750 acres. In 1906, S. A. Beach gave an interesting overlook on apple production, presenting a national view after the great expansion of apple orchards in the 1890's, an expansion that was greatest in New Jersey, followed by Connecticut, Pennsylvania, New York, and Massachusetts in that order. In 1908, М. Soper of Magnolia, Delaware, presented his viewpoints as a F. successful apple grower. He reported that "our spraying is now all done by gasoline engine power. Several years ago we discarded the hand pumps." He pointed out that on hand pumps, as men got tired pressure went down, and with this equipment he could spray only 1,000 gallons/day. With power equipment, pressure was steady for 5,000 gallons/day that could be applied. The next year, W. A. the Taylor presented a significant paper on storage, transportation, and marketing investigations in the USDA. It had been common for apple growers to pick apples immature to get longer storage life. Taylor's studies showed this to be exactly the wrong thing to do, the devastation of storage scald only one of the disorders that By 1910 growers were beginning to experiment with coal followed. and oil heaters for alleviating spring frost. Over the next few years, programs gave more attention to packaging, marketing, "coop" marketing, relations with canners, grades and standards. Fertilizers began to command some attention as did soil management. Pruning was discussed in some detail, even summer pruning to contain growth and encourage flower bud initiation. By this time thinning of peaches was becoming accepted by everyone as a necessary practice to achieve adequate fruit size. New fruit cultivars were constantly monitored on Society programs by various speakers.

Peach yellows and San Jose scale provided the stimulus for creating the MSHS, so it is likely that the key speakers at the annual meetings were personnel of the State Horticultural Department Fumigation for scale was required by law of all in early years. nursery stock produced in the state, so nursery work was part of But beginning with W. G. Johnson, entomologists and every report. pathologists undertook extensive orchard inspections for scale and In 1899, most of the inspection was done in Kent County, yellows. but two years later, with additional help involved, A. L. Quaintance (State Entomologist) reported he had a card catalog of San Jose scale in every commercial orchard of the state. He reported the worst infestations were in Frederick, Washington, and Anne Arundel Counties. Quaintance advised spraying with whale oil soap, or with kerosene or crude petroleum in mechanical mixture with water. By now, part time people were hired in summer to extend the range of inspection, and some of these inspectors were supplied with bucket pumps with which to demonstrate spraying in their district; they were also encouraged to do custom spraying on their own time for a "reasonable wage". The bucket pump was equipment of extremely limited capacity, but it must be remembered that this equipment was the first departure from no spraying at all. In 1902, 1,090,000 trees were inspected in the state, and a breakdown was given at the meeting on where scale and yellows were found. Yellows, by this

time, was quite secondary in these annual reports, for growers removed infected trees willingly and promptly, and thus infected trees were usually not seen a second time by inspectors. Scale, however, continued to plague fruit growers, and, while control was being achieved with boiled lime-sulfur and salt "wash", spraying was in its infancy, and too many growers were totally unfamiliar with it. Because of this, spraying demonstrations were conducted to teach the practice, and, as time went on, demonstrations took on major importance in the fruit districts of the state.

The report of State Entomologist T. B. Symons in 1903 stimulated discussion which is most revealing. It was recognized that "not one in 100 fruit growers has any means for spraying". The discussion then centered on generating support for the proposition that the state be requested to supply sprayers for every fruit section to make it possible for growers to hire the spraying done. S. S. Stouffer argued forcefully against, saying, "I don't think it is practicable for the state to do the work for individual farmers." He strongly urged that each orchardist must learn to do the job himself for a number of reasons, one of which was to get the job done when it was needed rather that when one's turn came to use equipment. Symons supported this view, advancing the state prophetic view that if the state got into the business it would likely cost more than if growers did it themselves. Symons proposed that "two or three growers club together", buy a barrel pump (a good sized one would cost about \$18) which would serve all three and, if taken care of, should last ten years. At the root of the whole discussion was the problem good fruit growers were having with invasion of scale from unsprayed orchards in the neighborhood.

Rather than being "completely under control" as Johnson had reported in 1898, San Jose scale was "the principal hindrance to extensive tree planting" in 1904, according to James Harris. Inspections continued to reach 1 million or more trees per year, but spraying became more extensive each year, and gradually this insect came under control. Before this was achieved, however, other insects and diseases surfaced so that in 1902, Blodgett and Symons published the first so-called spray calendar in which they listed principal insects and diseases for each month of the year, and advised treatment. Already curculio, codling moth, borers, and aphids were troublesome, while scab, and especially fireblight, commanded attention from pathologists. As the years went by, the focus of the State Horticultural Department men began to shift away from inspection and toward demonstrations. By 1912, inspections were put on a "complaint basis", wholesale coverage of the state no longer attempted. Rather, spraying demonstrations in fruit areas became the objective of entomologists and pathologists, later joined by the State Horticulturist. In 1915, for example, Department personnel conducted 132 pruning, 52 spraying, and 26 packing demonstrations major fruit districts. In addition to in demonstration and other work, Department personnel were beginning to do some investigation work on insects and diseases, on hand thinning of apples and peaches, and on home storage of fruits. This was overlap with the mission of the Agricultural Experiment Station, but

by this time the distinction between College, Experiment Station and State Department personnel was fading. They were all on the campus at College Park, and it certainly made no difference to fruit growers who did the work as long as it was done. The Experiment Station was not yet filling the need in these areas, so the State Horticultural Department expanded to cover the need.

For the earlier years of the Society, the annual reports presented a standard mix - invited papers, the question box, reports of standing committees and county vice presidents, Society business resolutions. The question box was an important and useful and feature that did not survive the early years. But while it did, questions and answers afford an interesting view of concerns and the capability of someone to provide an answer. Some of the questions remain the same to this day, especially one in 1903: "A question about the unsatisfactory character and scarcity of labor on the farm - what are we going to do about it?" Some were ahead of their time, such as the one in 1904: "How is the atomic theory affected by the new theory that the atom can be divided?"

Reports from standing committees took much space in early years, long before 1918, these committees almost disappeared. The but Committee on Transportation was constantly up front with problems of shipping on railroads, problems of pilferage, lost shipments, destructive handling, and unfair freight rates. Attempts to get relief through legislation failed, and the problem continued to such a degree that President Cohill spent much time in his 1913 presidential address on inequities in freight rates wherein western growers still had cheaper rates to the same markets as were being supplied by Maryland growers. The problem was never satisfactorily The Committee on Ornamentals reported for several years resolved. on the problem of theft of Christmas trees and holly from privately owned plantings. Much discussion was given to these reports, and no evidence can be found that the problem was satisfactorily resolved. In 1908, W. R. Ballard reported for the Committee on Nomenclature, and singled out the new cultivar 'Delicious', introduced in 1895 by Stark Bros. Nursery. Ballard described the apple, and judged it worthy of trial in Maryland, especially in the mountain sections of the state. This report makes interesting reading 79 years later.

County vice presidents were called on annually for a report. From the beginning these reports varied from none at all to excellent. Most were crop reports for the county for the year, including not only fruits and vegetables in detail, but often alfalfa, hay, and other field crops as well. These reports took up much space, but did little for the Society in advancing knowledge of fruit production. Yet each county was included in the beginning when interest in horticulture was widespread. In practice, however, counties with little or no fruit gradually dropped out, and this feature of the program diminished as the years went by. Despite this, vice presidents for each county were elected annually through the early years.

Resolutions reflect concerns. Early resolutions of the Society

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concentrated on thanking boat and railroad companies for reduced fares for meeting participants, people who participated in the meeting, etc. In 1902, a resolution thanked the Baltimore press "For giving fully and correct reports of our program and proceedings" a novel experience in the light of today's realities in this regard. In 1906, the Society was incensed over the proposed Federal expenditure on one million dollars to provide free seeds to citizens. A resolution on this stated, "..this is an unwarranted expenditure for public funds...we earnestly protest against any Congressional appropriation for free seeds or their distribution." A resolution in 1917, the last year of this era, was more in keeping with what was to come, this a resolution recognizing the need for uniform grades and standards for fruits and vegetables throughout the U.S. The resolution pledged support for a federal law for federal grades and pack standards.

Congress established the Cooperative Extension Service in 1914, but this significant development went virtually unnoticed in Society reports through 1916, with the single exception of casual mention that Extension personnel would likely augment State Department efforts in demonstrations throughout the state. It wasn't until 1917 that the first real report on Extension was presented in the form of a talk by T. E. McLaughlin, first county agent of Harford County, to a joint session of the MSHS and the Crop Improvement Association. McLaughlin offered his definition of a county agent thus: "The county agent is supposed to bring the Department of Agriculture and the College up to the farmers' doors in the counties, and he does it, more or less." Certainly McLaughlin did it, for he logged 13,000 miles on his Model T Ford that year, an astonishing, brutal total considering his equipment and the rudimentary roads of the period. In his travel he made 733 farm visits, and participated in 38 demonstrations. His biggest effort in this wartime year was to establish a farm labor bureau in the county, and to support it he advertised in Baltimore papers trying to recruit farm labor for the county. He also obtained a tractor from the Defense Council, and with this machine he hoped to accommodate the plowing of 500 acres of land on county farms during plowing season. Perhaps no one foresaw what county extension this personnel and state specialists would do for MSHS members, that the Society was no longer alone in getting information to fruit growers. Information was Extension's business; help was now at hand, and it would become extremely important in the years ahead. Life on the Maryland farm would never be the same.

Annual reports of the Society through 1915 are distinctive, long winded, often eloquent, all inclusive. But some containment was needed early, so in 1904, the executive committee adopted a rule limiting talks to five minutes at the annual meeting, "Except on such topics as the Society may consider necessary." Yet two years later the annual report contained 94 pages on the two-day summer meeting at Berlin, and 19 pages on the annual banquet at the winter meeting, most of which involved windy speeches and toasts. As the years went by in this early period, the question box disappeared, reports of the county vice presidents thinned out, and talks became less rambling. By the time MSHS joined with three other societies to form the new Maryland Agricultural Society in 1916, annual reports began to shape up for long term with less verbiage in toasts, congratulations to each other and niceties. As we review these reports for the first 19 years, we are left with an appreciation for the wisdom and eloquence of early leaders in the MSHS. It was an era with a flavor all its own, the early years of a society here to stay. In the haste of our modern world, one would do well to take a quiet moment now and then to read of some of the trials of the first fruit growers, some of the eloquence of men like J. W. Kerr. They faced a frightening frontier at times, but they persevered. We owe much of these sturdy, intelligent men who gave so much of themselves to the MSHS in the formative years.

# THE MIDDLE YEARS, 1918 - 1945

The 1918 meeting was held in December as usual, just weeks after the signing of the armistice on November 11th, ending World War I. There was a collective sigh of relief throughout the nation, and it is reflected in the 1918 annual report. The trials of the war years could now be relegated to history, and the business of commercial fruit growers advanced. The summer meeting that year was held at the C. E. Bryan orchard at Havre de Grace, and despite the war attendance was estimated at "500-700", so interest in MSHS activities continued unabated, especially summer meetings. Problems rail shipment continued, and gave some urgency to the with development of the motor truck which by now was being used in the fruit industry. Power sprayers had replaced the barrel pump, and shortly the internal combustion engine would completely replace the horse and the mule. It was a new world, and the Society was poised in several ways to enter a new era. Gone was the excess baggage of the early formative years. The Society had matured, and in a real sense was lean and ready for a very different set of problems in Maryland fruit production.

If one individual can be pivotal, the new era in MSHS history got that person in 1918 with the arrival of E. C. Auchter. Head of horticulture at West Virginia University, Auchter was hired by President A. F. Woods of the now-named Maryland State College to head the department at College Park. In accepting the position, Auchter demanded control over all aspects of the department, including teaching, research, and extension - something apparently novel at that time. The horticulture group at College Park had undergone a series of name changes now hard to sort out. The State Horticultural Department, created by the legislature in 1900 and perhaps somewhat misnamed, had nothing to do with the teaching and research staff of the Agricultural College. Yet they were housed on the campus, and, in time, the distinction became obscure. In 1912, with the hiring of additional teaching staff, a "School" of horticulture was created with T. B. Symons as "dean". Within a year became a "division", and shortly after that, a the school "department". The position of the State Entomologist, Pathologist, and Horticulturist in all this is not clear; we do not know if they

were included in the school or division or not. What is certain is that before 1918 the State Horticultural Department personnel were all-important to MSHS members, regardless of budget alignments at College Park.

The Department of Horticulture as we have known it ever since was put in place by Auchter. He coordinated teaching and research in horticulture as it had never been known before, and he added faculty members. Auchter himself was a superb scientist, and he executed the first real scientific work in pomology in the state. He was productive, and he was a regular speaker on MSHS programs. The year after his arrival the State College was organized into a number of schools, one of which was the Graduate School. The next year the professional schools in Baltimore and the State College were organized into a single unit, the University of Maryland. With this structure in place, Auchter recruited graduate students, and set up a sound graduate program in which he integrated graduate training into the teaching and research programs of the department for the first time. His first M.S. degree candidates in 1923 included Albert F. Vierheller, for years extension pomologist and Society secretary, and Victor R. Boswell who went on to a distinguished career in research and administration in vegetable crops in the U. S. Department of Agriculture.

Auchter was an extraordinary organizer and motivator. He worked closely with the MSHS, and he began to plan a new horticulture building as early as 1923. In a 1926 memo to President Woods, he suggested a \$360,000 building at least 60 x 100 feet, and even proposed a location for it on the campus. From this time on, Auchter orchestrated the new building among MSHS, University, and political leaders of the state. By the time the building was built in 1931, Auchter had moved on to the USDA, but this building was his creation, and it was he who was the single greatest motivating force which brought it about. For all who knew the story the building is misnamed; it should be Auchter Hall.

While county vice presidents were still nominated and elected, when the president called for reports of the vice presidents at the 1918 and 1919 annual meetings, none were forthcoming. At the 1920 meeting, vice presidents for counties were no longer listed on the Society masthead, and thus, without an announcement of any kind, the county vice presidents were dropped. By this time standing committees had virtually disappeared. Committees were appointed as needed to deal with specific problems, but the original structure of standing committees for all facets of horticulture had ended. Beginning early in the middle years, committee reports were generally limited to those of the nominating and resolution committees.

Loss of the Armory in 1917 meant that the Maryland Agricultural Society and affiliated groups had to find a new home for annual meetings. The Emerson Hotel served this purpose for two years, and then, in 1919, the group moved to Hagerstown in October to hold the annual meeting in conjunction with the Farmers' National Congress.



FRUIT AND NUT EXHIBIT OF THE MARYLAND STATE HORTICULTURAL SOCIETY AT THE NATIONAL HORTICULTURAL CONGRESS, COUNCIL BLUFFS, IOWA, IN DECEMBER, 1908. Reproduced from: Report of the Maryland State Horticultural Society, Volume 11, 1908.



SOME MARYLAND HORTICULTURISTS WHO WERE IN ATTENDANCE AT THE FIFTH ANNUAL MEETING. Reproduced from: Report of the Maryland State Horticultural Society, Volume 5, 1902.

# COMPARISON OF FUMIGATOR METHODS 1899



BOX SYSTEM, SHOWING METHOD OF HANDLING FUMIGATORS. Reproduced from: Report of the Maryland State Horticultural Society, Volume 2, 1899.



FUMIGATING IN ORCHARD, SHOWING TENT SYSTEM. Reproduced from: Report of the Maryland State Horticultural Society, Volume 2, 1899.



THE BOX AND TENT SYSTEM COMPARED. Reproduced from: Report of the Maryland State Horticultural Society, Volume 2, 1899.



VIEW OF THE SUMMER MEETING AT J. G. HARRISON & SONS, BERLIN, MARYLAND. ''1200 - 1500'' ATTENDANCE!! Reproduced from: Report of the Maryland State Horticultural Society, Volume 16, 1913.



VIEW OF AFFILIATED MEETING IN EXHIBITION HALL, FIFTH REGIMENT ARMORY Reproduced from: Report of the Maryland State Horticultural Society, Volume 14, 1911.

After a meeting in Salisbury and again in Baltimore, the group moved to the Opera House in Frederick for the 1922 meeting (held in January, 1923). This was the 25th anniversary meeting of the MSHS, little seems to have been made of it. Perhaps it was but overshadowed by the reorganization of the Maryland Agricultural Society into a Maryland Farm Bureau Federation that year. However, the old name was retained, so the new organization became known as the Maryland Agricultural Society - Maryland Farm Bureau Federation While the Society continued to meet with the umbrella (MAS-MFBF). group, in 1925 the MSHS met in the Odd Fellows Hall while the MAS-MFBF met in the Hotel Rennert, a pattern which was to continue. At the 1926 meeting much discussion was given to having another fruit exhibit in connection with the annual meeting, a feature which was dropped when the Armory was lost. Many members felt is was time resume exhibits, though the discussion did recognize the time, to effort, and expense involved. But Lee Allen introduced a new element into Society thinking by pointing out that commercial suppliers were interested in exhibiting their products for members, and they were willing to pay for the privilege. The idea of a suppliers' exhibit which would also produce revenue proved A resolution was promptly adopted directing the irresistible. executive committee "to look into the advisability of putting on a show in connection with the horticultural meeting, that is, a display of apples and orchard supplies and machinery."

This resolution was a turning point in Society history, for the commercial exhibit came into being which would become so important to members that the idea of a horticultural product exhibit was "that forgotten. The executive committee found promptly accommodations that would be within our financial reach" were simply available for the next winter meeting, so instead a machinery not and equipment exhibit was held in connection with the summer meeting at Hancock the following summer (1927). This exhibit provided "a feature that made our meeting at Hancock one of the outstanding meetings of our history". The following year, spraying and dusting machinery was exhibited at the summer meeting at E. D. McCain's orchard at Frederick.

The Society broke away from the MAS-MFBF meeting site in January, 1932, to hold the next 3 annual meetings in the new horticulture building at College Park, complete with exhibits set up by the Department in the large rooms on the ground floor. And so Auchter's building fulfilled his plans early, as he had included an auditorium in the west wing of the building to accommodate annual Society meetings. The second year the exhibits were expanded to include 5 mechanical fruit washing machines, 3 spray machines, and 3 types of tractors. Society members were so satisfied with the arrangements that they passed a resolution at the 36th annual meeting to adopt the horticulture building as the permanent site for the annual meeting, with the time specified as the first week in January.

But it was not to be. During three years of meetings at College Park, attendance had fallen off, and so in the spring of 1935, the

executive committee decided to move the meeting site closer to the center of fruit production. Thus Hagerstown was chosen where the meetings were held in the Alexander Hotel while an equipment exhibit was set up down the street in the Hagerstown Auto Parts Company It was an astute move supported readily by membership. garage. Attendance picked up, and the next year at Hagerstown, Secretary Vierheller announced paid-up membership of 208, the highest since he took over the office. Furthermore, the meetings had attracted so many growers from neighboring states that members were moved to pass a resolution urging officers "to see what can be done to bring about the closest possible cooperation between the four societies (VA, WV, MD, and PA)." They further suggested to officers the advisability of 1) joint annual meetings, 2) a possible joint publication of outstanding merit and value, and 3) the "formation of a four-state association of fruit growers to be organized and operated along efficient lines for the material advantages to be mutually gained."

For reasons not apparent, the Society went back to Baltimore the next year for the 40th annual meeting in concert with the annual meeting of the MAS-MFBF. It was to be the last time, for in the resolutions of this meeting, members held that "Western Maryland meetings are best", recommended Hagerstown for the next meeting. They made it part way with the next meeting in Frederick, but members still had Hagerstown on their minds, for they passed a resolution requesting, "a committee be appointed to find a suitable location in Hagerstown where it will be possible to combine commercial exhibits with the regular meeting." And so the die was cast to hold the annual meetings in Hagerstown for the next 32 Three sites were used, and at the first two commercial years. exhibit areas were most unsatisfactory. But the site of the meeting was fixed for the major producing area for years, and that was not to be changed until the whole prospectus for the Society changed years later.

Regardless of where winter meetings were held, summer meetings were held from the very earliest years of the Society, and continued to attract record attendance. The largest number ever achieved is not recorded in Society records, but was revealed in J. W. Englar's presidential address when he referred to the 1926 summer meeting as having been addressed by Governor Ritchie, and indicated that 3,000 people were served lunch at that meeting! The scene of this astounding session was Berlin with the Harrison family as hosts, a combination which twice earlier had attracted record attendance. As indicated earlier, the summer meeting at Hancock the following year was accompanied by the first machinery and equipment exhibit, a feature which has been retained one way or another to the present day. In 1932, three summer meetings were held at Smithsburg, Havre de Grace, and Easton, and the following year two meetings were held, one at Cockeysville, and one at Hancock. In most years, however, a single summer meeting was held in different parts of the state, some joint with neighboring societies, and most were well attended.

An annual spray program of some kind was firmly established in Maryland orchards at the close of World War I. It was recognized by

all that every fruit grower - and not the state - had to spray to control insects and diseases if he was to make a living in the business. It is neither the purview nor the mission of this history to catalog all insects and diseases of consequence, and the control measures worked out for each. It suffices to say that control uppermost in the minds of fruit growers, and became annual presentations of the State Entomologist and Pathologist no doubt drew a full house at each meeting. Accompanying the lengthy detail of control, however, were papers portraying the shifting scene of In 1918, dusting was discussed at some length as an procedure. alternative to spraying, a subject which was to appear on the pages of annual reports for the next dozen years. Labor was short, and in mountain orchards water too was limited; these realities gave rise to several years of experimental work with dusting, a phenomenon ultimately to disappear as spray equipment became more efficient.

In 1923, W. Ferris, president of the WV Horticultural Society, presented the first discussion of "hydrant" spraying, later to be better known as central or stationary spray equipment. In this system, spray solution was mixed at a large central plant, and piped throughout the orchard under high pressure. Nozzlemen equipped with and a length of hose tapped into lines at intervals and spray quns sprayed fixed sets of trees from each tap. The stationary system was discussed at annual meetings through the 1938 meeting, with advantages cited as labor saving (Ferris stated his equipment replaced 100 gallon sprayers pulled by 4 mules), as accommodating spraying on steep land and on wet land in spring. While stationary systems became standard in some districts of the nation, they were by no means standard in Maryland. At the 1927 meeting, Hough of the Winchester (VA) Laboratory reviewed desirable spray equipment and its care. After quickly reviewing bucket and barrel pumps since some were still in use, he reported on 4-hp machines with 8-10 gal/min pumps, indicated we now need 6-hp machines with 15 gal/min pumps, predicted "we will soon see 15-hp power plants and 20 gal/minute pumps." Towards the end of the middle years the modern era of spraying was introduced to the MSHS in a paper at the 1941 meeting by Lee Allen on the air blast sprayer. The Allen brothers at Salisbury had bought one machine for the 1941 season, and found they could do as much with this machine as they could with "5 or 6 high pressure sprayers with hand guns." They had purchased a second air blast sprayer, and with this equipment they anticipated doing spraying in the 1942 season with just two machines. This was a all harbinger of the future, for while the Allens were applying dilute concentrations and gallonages, this type of equipment would make possible the low volume spraying of 30 years later.

In 1923, the Extension Service inaugurated a spray service calendar and weather forecast in the early season for three weeks. This information was telegraphed daily to the four leading fruit counties, while cards were mailed out through the season by S. B. Shaw to a list of 400 growers. In 1926, Secretary Canby warned members on the matter of spray residue on fruit, a growing problem. By 1930, the problem was of sufficient consequence that on the program that year, D. F. Fisher of the USDA discussed newer developments in the washing of fruit, while Hough and Groves of the Winchester Lab presented problems and experiences of removing residues from the 1930 crop. At the 1936 meeting, still another spray problem got a thorough airing, that of spray injury. Twenty three pages of this annual report were devoted to spray injury in the four states, experimental work in each state on spray injury, and results.

The early years of this period leading up to the great depression were characterized by a mix of orchard production concerns in the annual reports. Cooperative packing houses came up repeatedly, and were tried in various places of the state for both fruits and vegetables. The motivating force behind these was to achieve standardization of grades and packs, but none of these efforts was lasting, as growers preferred to pack their own on the Pruning continued to be discussed at length, while marketing farm. got more and more attention as Maryland growers began to realize they were competing with southern peaches, and with apples from all major producing districts. Smaller packages were frequently discussed, this in an era still dominated by the barrel. Other topics included orchard heating, hand thinning, pollination, fertilization, organic matter in the orchard, soil moisture effects, cover crops, and mouse control. Some individual papers are of interest and significance during this period. In 1918, Leo Cohill reported on the use of the motor truck in the orchard. With a 3-ton truck he was able to haul 700 barrels of apples per day from his packing house to a railroad siding two miles away, in contrast to the 80 barrels a day he could haul with a wagon and a team of mules. However, he encountered one unexpected problem when his truck was frequently stuck behind a team and wagon on the narrow roads of the day, unable to pass.

In 1919, S. A. Beach of Iowa State College presented an interesting paper on the future of the apple industry. He stressed that throughout the midwest and east the old farm orchard was qoinq out, that fruit growing was becoming a specialized business. Beach said demand was going up, that overproduction was unlikely. In a 1920 marketing discussion, growers were urged to get away from consignment shipment, to get their business on a FOB basis. At the same meeting Hale Harrison declared that the new cultivar 'Delicious' was "not a good cooker", advised growers not to plant heavily on this one. In 1924, Auchter gave a brilliant talk on the interaction of soil moisture, fertilization, and pruning on apple production, the first such comprehensive treatment ever to appear in MSHS reports. The next year Auchter revealed his scope of thinking in a paper outlining what he regarded as the significant fruit research problems of the day. He listed them as follows:

Pollination Fertilization - apple, peach, strawberry Fruit breeding - apple, pear, grape Biennial bearing of apple Shading influence on flower bud formation Rejuvenation of peach orchards Pruning - apple, grape, peach Orchard soil management Influence of time of planting on first year's growth Rootstock studies (Auchter reported he had "an experimental orchard of 7 acres on known roots, probably the first orchard in America grown in this way."

Before the depression, growers were already considering the fine print, illustrated by J. R. Magness' talk on "What should we do to soil and tree to produce good sized and colored fruit?"

The depression of the 1930's sharpened the perspective for Production talks given at annual meetings now focused on evervone. reducing costs, on examining any item in orchard management which could be done more efficiently, improving fruit size, biennial bearing, packaging, national agricultural programs, marketing, fruit color and maturity studies, storage problems, fruit tree removal programs, and on such troubles as fruit cracking, russeting, and Pollination was given more attention, likely because by watercore. now it was apparent that the much-planted 'Delicious' was self unfruitful, and was absolutely dependent on cross pollination for a crop. The Society brought in A. J. Heinicke to discuss this Heinicke was head of pomology at Cornell University and a problem. leading expert on fruit set; his appearance on the program underlines how important the problem of pollination was considered. Before the depression was over, a very significant paper was presented at the 1939 meeting by F. E. Gardner, USDA, on the use of hormones to control the preharvest drop of apples. Gardner had been working with his colleague, L. P. Batjer, at Beltsville, taking a cue from work done with naphthalene acetic acid (NAA) to reduce the shattering of holly berries from cut holly in the Christmas trade. Gardner's paper was the opening shot on a practice which has been Though compounds have changed, NAA remains the used ever since. standard. It now is the only inexpensive compound available with the removal of more effective synthetic auxins by environmental concerns.

During the years of World War II, the MSHS held an annual meeting, and emphasis guite logically dealt with a very short labor supply, packaging trends, economy in orchard practices of all kinds, production costs, and the growing menace of codling moth. There were no talks on marketing, likely because during the great war farmers had no difficulty selling everything they could produce. Program speakers during this period came mostly from University personnel at College Park, and USDA scientists from Beltsville, The 1944 speaker roster was made up of mostly fruit growers, likely reflecting gasoline rationing and thus travel difficulties. Batjer gave an update on sprays to control the preharvest drop of apples, but surely the most significant paper during the war was his on blossom removal sprays. The idea of spraying to defruit came from Auchter's work of a dozen years earlier, work in which he attempted to defruit "off" year apple trees so as to eliminate the need to spray that year with pesticides. Batjer and his colleagues at

Beltsville picked up Auchter's idea, and developed it into partial deblossoming with chemical sprays, and thus the idea of chemical spray thinning was born. Batjer's paper in 1942 introduced the subject of chemical thinning, and this was to be on the MSHS program for the next quarter century.

The middle years are distinguished from the early years in Society history because many other things were going on, and were being discussed at the annual meeting. Further, the Society acted and interacted as an entity in relation to other groups and developments concerning the fruit industry.

In 1920, S. B. Shaw, extension pomologist as well as Society Secretary, inaugurated a crop reporting service, and growers were urged by Society officers to cooperate, to submit accurate estimates of their crop each year so more orderly marketing could ensue during the season. By 1926, however, growers were having second thoughts. For that and the following year, resolutions were adopted urging growers to be conservative in crop estimates, to allow for drops, culls, etc. The fear was that estimates of large crops were being used by wholesale buyers to hold down prices.

In 1921, The Agricultural Corporation of Maryland was set up, spearheaded by president C. E. Bryan. This organization was developed for group purchase of supplies, but after a year or so it disappeared from Society considerations. In 1922, President Cohill called a meeting of county people to set up the Western Maryland Fruit Exchange. First effort was limited to one house at Hancock which six growers used successfully that year. But this effort, like the establishment of community packing houses, was transitory, and did not stand the test of time.

In 1924, shipping point inspection came to Maryland. Set up at four locations - Easton, New Windsor, Town Creek, and Hancock - this service provided inspection of 9 per cent of all exported apples that year, a significant start. Another first for 1924 was the establishment of the Maryland State Department of Markets in July, "for standardization and inspection, cooperative marketing, marketing information and surveys." Five inspectors were hired in addition to S. B. Shaw who left his position in extension to become chief inspector. Two years later Shaw reported to the Society on the expanded service, indicating that most inspections that year had been done on apples and Irish potatoes.

In 1925, the International Apple Shippers' Association and the National League of Commission Merchants started a joint advertising program to promote produce handling by each. The MSHS got involved in this, the first mention of advertising in Society records. But advertising did not become fixed in the MSHS until the creation of Appalachian Apples, Inc. (later better known as Appalachian Apple Service) in July, 1936. Headed by Carroll R. Miller of Martinsburg, and set up to advertise apples of the four-state Appalachian district, this voluntary organization was based on a fee of 1/2 cents/bushel, utility grade or above, sold off the farm. Four years later Secretary Vierheller was reporting annually to the Society on his activities for MSHS not only with AAS, but with the National Apple Institute and the International Apple Association.

In 1937, the Middle Atlantic Fruit Growers' conference was set by the four-state societies. The first meeting was held in up January, 1938, in Washington, D.C., just one week prior to the MSHS annual meeting. President C. E. Bryan strongly endorsed the MAFGC, but there is no evidence that this attempt at cooperation lasted more than a year. An interesting new structure appeared in 1940 with the creation of the Horticultural Council. This group included all horticultural interests of the state, including the canners, and met annually with the MAS-MFBF in Baltimore. At this meeting the submitted budget requests which were then considered by the Council Farm Bureau Legislative Committee. The consolidation of requests by this committee was done to have more impact in the legislature, and it was the vehicle used for some years by the Society in making requests of the legislature. In 1940, the Society asked for the following:

\$2,000 - Shipping point inspection revolving fund

3,500 - Equipment for the new Horticultural Research Farm

- 1,000 Spray residue laboratory in Western Maryland
- 3,000 Peach disease research

E. C. Auchter built up the Department of Horticulture with dispatch, and soon the department outgrew its guarters on the campus. Auchter found himself with personnel housed in various places, so he began to plan a new building to accommodate this growing group. The MSHS figured prominently in the promotion of this facility. J. W. Englar called for support of the budget request for a new building in his presidential address in 1926. The next year considerable discussion was given the matter at the annual meeting. It was brought out that Governor Ritchie was appealed to directly the previous year, but the governor cut spending for the University, and his reason was he didn't want to expand the University and thus increase maintenance costs! Thus a 1927 resolution of the Society firmly supported an appropriation of funds for a horticulture building. The next year President McCain announced that the governor had included \$160,000 in his recommended for the building, and this request was now backed by the budget administration, Tri-State University the Canners' entire Association, the Farm Bureau, and the Grange. Auchter had done his homework well, and so the building became a reality. At the 34th annual meeting held in the new building, the annual dinner featured the dedication of the building. Toastmaster was state senator W. E. Withgott who had nursed the building appropriation through the legislature. Withgott would become president the following year, was the only MSHS president to die in office. At the dinner, and President Pearson of the University referred to the new building as a "\$150,000 outfit."

The scope of resolutions during the middle years provides a good

sampling of Society thinking. In 1921, one resolution called for an effective law, or better enforcement of the existing law, to control orchards not properly cared for. Inspectors had the authority to order orchards sprayed at owners expense, but not enough of this was being done. The concern was still San Jose scale. Another resolution that year called for more support for all programs in the College of Agriculture at College Park. Several resolutions over the next few years called for better grade and pack standards. In 1923, the Society voted a resolution calling for the Experiment Station "to organize a school for packing and grading with at least two weeks of instruction." A 1925 resolution "urged passage of the Perkins bill (in Congress) for standardizing containers for fruits and vegetables." In 1926, Society concerns included opposition to new reclamation projects in the west which would open up new land and lead to increased production. Also, this group favored a law requiring compulsory liability insurance of \$1,000 for all motor vehicles. In 1927, the Society endorsed efforts to keep Maryland out of the Federal quarantine area for Japanese beetle, a growing The respect E. C. Auchter commanded in the Society is problem. reflected in a 1928 resolution. Auchter left the University in 1928 to head fruit research in the U.S. Department of Agriculture in But, in a most unusual arrangement, he downtown Washington. retained his position as head of the Department of Horticulture for another four years. The Society urged University officials "to leave nothing undone that they can do to have Dr. Auchter maintain his connection with the University on this basis, unless at some future time circumstances warrant him in returning to Maryland more fully."

Resolutions during the depression illustrate economic concerns. In 1930 the Society urged that state and Congressional representatives be notified of the need to alleviate present exchange tariff and quota restrictions on export trade. Another urged advancement of export of apples through the port of Baltimore. In 1933, The Society found the wage rates for relief workers too high (Civil Works Administration), urged that rates be adjusted so as to provide incentive to seek private employment. In 1935, a Society resolution urged that appropriations for the Experiment By 1939, the bushel package situation had Station not be cut. become chaotic with many sizes, styles, and varying cubic content. The Society urged "a committee of three be formed to study and adopt a practical, uniform box and style of pack, urge use in the four state area." A 1940 resolution called for a Society legislative committee to represent the MSHS in all matters pertaining to legislation.

Wartime resolutions reflected the period, such as the 1941 resolution urging everyone to aid the government in the defense of our country. Among resolutions passed in 1943 is one thanking the Extension Service for aid in recruiting farm labor, one calling for simplification of Federal income tax laws, and another asking that the National Apple Institute join with other national fruit organizations to form a National Fruit Advisory Council to "capably represent the entire fruit industry of the country in post-war export trade." In 1944, the Society asked the War Department to establish more prisoner of war camps in areas of critical labor shortages, and to pay for construction. By this time, codling moth had become a severe menace, moving the Society to request that a field laboratory be established in Western Maryland to deal with that and other urgent problems. President Walker conferred with University President Harry Byrd and Extension Director T. B. Symons to get this included on University budget requests. C. H. Mahoney, head of the Department of Horticulture and a member of the Horticultural Council, proposed that the Council present this to the Farm Bureau Legislative Committee for support and presentation to the legislature. This was done, and the laboratory at Hancock became reality on July 1, 1945.

Thus ended the middle years of the Society. The roaring twenties had brought maturation, specialization in the fruit business, advances in orchard management, proliferation of packaging, marketing consciousness. The depression years were accompanied by severe problems on all sides, a struggle to stay solvent that was characterized by an interest in advertising, and Society interaction with allied groups to expedite solutions to problems. World War II descended on the fruit industry with a vengeance, and the depression ended. Indeed, the war ended the depression, for unemployment in the land quickly disappeared. Selling fruit during the war was no problem, but everything else was. Labor and supplies were tight, and fruit growers dealt with it as best they could. The close of the war would solve many problems. It would create new ones to be sure, but somehow peace would mean an end to worldwide bloodshed and attendant anguish. And peace would herald a new era in the history of the MSHS.

#### THE MODERN YEARS 1945-1987

Perhaps there is coincidence in twice adopting the close of a world war as the end of an old, the beginning of a new era in MSHS history. But while there are similarities between 1918 and 1945, there are enormous differences, too. We were now living in the atomic age, as announced in August, 1945, at Hiroshima, and nothing would ever be the same. Further, in 1945 fruit growers were completing 15 years of great stress, first the devastating depression, and then the difficulties and uncertainties of operating during an all-out war effort. Moreover, the depression and the war held back technical development of many tools for the fruit grower, the means and the manpower to research and develop the technology of the future. And we were about to experience a technological explosion greater than anything before in our history. Advances in such fields as electronics, biochemistry, plant physiology, engineering, transportation, and, above all, in computers would change our lives in ways no one could envision in 1945. The MSHS was truly embarking on the modern years.

Doubtless apple growers of the time would point the finger at codling moth control as the severest problem in 1945. Veteran fruit growers told the writer often about the devastation of this insect,

of crops which graded as much as 98 per cent infested in 1944, of the utter failure of repeated sprays of lead arsenate to achieve commercial control of this pest. So once again fruit growers were faced with a crisis no less critical than yellows and San Jose scale of the past. It was out of desperation over this problem that organized effort by the MSHS and others brought about the field laboratory at Hancock, a facility which would prove of lasting value for field research, and was to remain the headquarters of this activity until the Western Maryland Research and Education Center opened near Sharpsburg.

The 48th annual meeting in January, 1946, featured the most sensational news ever to be disclosed to members in the history of the MSHS, for it was here that DDT was introduced. Hough of the Winchester Lab and Graham of the Hancock Lab presented experimental results with this new organic compound, and showed dramatic, complete control of codling moth. The dynamic Henry W. Miller, president of Consolidated Orchards of Paw Paw, WV, reported on his experiences of spraying 800 acres the previous season with DDT, obtaining absolute control of this insect. There was one dissenting speaker, H. B. Raffensberger, fruit grower and consultant of Pennsylvania. Raffensberger was touting phenothiazine as a control for codling moth, and thus was negative on DDT. In his presentation he raised a number of cautions about DDT which, in time, became more astute when DDT was banned for use. However, his own compound never made it out of the starting gate then or later, and the evidence for DDT was so startling and so overwhelming that no one paid any attention to Raffensberger.

DDT was the beginning of a new era in pesticides, the organic compound age. A great flood of new organics came from research laboratories all over the world, and spraying became an alphabet soup of organic compounds. And while amazing control was achieved with many of these, it was achieved at a price not recognized at DDT destroyed many insects in addition to codling moth, and first. we were to learn that some of them were natural predators of spider mites. Thus, in time, mites became a severe problem for fruit growers, and remains to this day a formidable adversary. This is one example of the difficulties created by some new organics. Eventually the Environmental Protection Agency, created by the Miller Act of 1959, was to prohibit the use of many of the new organics on a basis of toxicological data and potential hazard to humans. In 1946, however, the new era in Society history began with a dramatic end to the serious codling moth problem. Many apple growers were on the ropes, and would not have survived had it not been for DDT. It was a sensational beginning for the modern years.

Advances in insect and disease control were not limited to new chemicals. At the 50th annual meeting, Fred Griest Jr., discussed newer types of spray machines, including the conventional high pressure sprayers, spray masts, air blast sprayers, liquid dusters, vapor dusters, and the airplane. Of these, the air blast sprayer was destined to prevail with constant refinement and improvement by designers. Concentration of chemicals in the spray tank for lower volume of application was tried early, and was discussed at Society meetings by area entomologists and pathologists repeatedly. But concentrate spraying was only the first step, and this gave way to present sophistication in which target volume of trees is assessed, and specific amounts of control chemicals are delivered in extremely low volumes per acre. Along with this, further sophistication has been reported at Society meetings in recent years under the heading of integrated pest management. Simply stated, we have moved from overkill in spray volume and amount of pesticide to constant monitoring of the insect population in the orchard, and demand spraying of minimal chemicals to achieve controlled balance. It is modern science being applied every day in the orchard, and it is in response to the cost of pest control, to an working. It is awareness of environmental concerns, and to a normal desire to advance the science.

Several areas of orchard management have advanced in the post-war years. L. E. Scott spearheaded leaf analyses surveys of Maryland orchards, and reported several times at Society meetings on nutrient status. This work led to the establishment of a leaf analysis service in the state championed by Secretary Stadelbacher, and outlined at the 70th annual meeting by A. Bandel. Through these years papers were given on various nutrients, especially nitrogen, zinc, and particularly boron. Noteworthy on this subject was the comprehensive discussion presented by G. J. Stadelbacher on nutrient deficiencies at the 71st annual meeting. Many other facets of fruit growing were covered during these years including repeated updates on herbicides, controlled atmosphere storage, fruit handling, frost control methods and frost meteorology, hydro-cooling of peaches, harvesting, harvest aids, and many aspects of marketing mechanical including roadside sales, quality, grower-processor relations, and Mouse control plagued growers throughout these years, packaging. and several appearances by Horsfall of VPI quided members in ground spraying with Endrin, a universal practice until banned by the EPA. Repeated droughts over the years brought thorough discussions of soil moisture and water relations, particularly by J. R. Magness of the USDA. Droughts also stimulated interest in several discussions irrigation by different speakers, discussions which in recent of years have focused on trickle irrigation. Small fruits have received annual programming, with attention given largely to cultural problems in strawberries, blueberries, and brambles.

Slowly, inexorably, the design and density of Maryland apple orchards has changed over the last 25 years. Old orchards with large trees in wide spacings became economic liabilities, and replacement has involved clonal rootstocks, smaller trees, and closer spacings. MSHS programs have provided a steady progression of experienced speakers for guidance. D. V. Fisher of British Columbia presented the concept of high density orcharding 20 years ago at the 70th annual meeting. Two years later James Ballard of Washington state discussed management of high density hedgerows. These speakers were fore-runners of those to come when the Society teamed up for joint annual meetings. At the 75th annual meeting in Roanoke, both D. R. Heinicke of Washington state and R. L. Norton of New York discussed tree training in more dense plantings, and both Later joint meetings were to feature Anthony attracted followers. Preston, East Malling Research Station in England, on clonal rootstocks, and R. F. Carlson of Michigan State, the only scientist in the U.S. whose research assignment was exclusively fruit tree Heinicke was to appear several times at area fruit rootstocks. meetings, and his system of spreaders for a modified central leader tree became common in Maryland. But Heinicke's tree involved no more than semi-dwarf stocks in medium density plantings. In 1967, R. V. Norman reported that one-third of the apple trees in Maryland were 8 years old or less, that half these trees were on "dwarf or semi-dwarf trees." Likely these were mostly semi-dwarf, but the move to more dense plantings continues. Secretary Walsh indicated at the 87th annual meeting that Maryland growers "are planting M 26 and M 7A heavily." It is clear that MSHS programs for years to come will feature discussions on tree training and dwarfing rootstocks in higher density plantings.

One of the spectacular developments of the modern years has been in growth regulators. Gardner's first report on NAA for research preharvest drop control in apples was followed by a number of speakers on later programs presenting a succession of more effective compounds. This control was available largely without risk, and is universally used by Maryland apple growers. The blossom spray thinning experiments of Batjer and his colleagues provided a beginning for a much needed procedure. But the dinitro compounds Batjer used were caustic, had to be applied during blossoming, and often severely over-thinned - especially if followed by rain. The Maryland Agricultural Experiment Station initiated a spray thinning project in 1952 which was active for a quarter century. Apple spray thinning arrived with growth regulators which would thin when applied well after blossoming when assessment of fruit set could be made, and this was reported repeatedly by Thompson and Rogers at Society meetings. By 1964, spray thinning of apples was so successful this crop was dropped from the project. But research on peach thinning went on for 25 years without success. Several promising compounds were thoroughly researched and reported to the Society, but none was consistent enough for adoption. Spray thinning of peaches remains a challenge to researchers today, and a much needed tool for growers.

Twenty-five years ago a new kind of growth regulator appeared with the introduction of daminozide, (trade name - Alar). Reports by several speakers at Society meetings indicated a multi-response in apples to this amazing chemical, including reduced cracking in Stayman, increased flower bud initiation, retardation of vegetative growth and pre-harvest drop, increased red color and firmness of fruit. Ten years later a different kind of growth regulator, 2-chloroethylphosphonic acid (trade name - Ethrel), appeared on Society programs. This ethylene-producing compound was found to have useful responses in advancing color and maturity of fruits, and is used in the industry today for this purpose. A mixture of growth regulators, gibberellic acid 4 + 7 and benzyladenine (trade name -Promalin), was shown to change the shape of 'Delicious' apples, rendering fruits more conic in shape with some tendency to more prominent calyx lobes, thus resembling the "type" 'Delicious' of the Pacific Northwest. This compound is used by Maryland growers on this cultivar, and, oddly, in the Pacific Northwest for the same purpose where they already produce the most conic 'Delicious' in the At the present time there are many chemicals in the hands nation. of researchers which are known to produce specific responses in fruit trees. Thus there is now the capability to promote or inhibit ripening, vegetative growth, flowering, storage life of fruit, and color development. Horticulturists over the world are busy studying the control of growth and fruiting with manipulation of these and other amazing chemicals. Clearly, Society programs far into the studded with fascinating reports on growth future will be regulators.

Financing has been a constant problem for the MSHS. Sometime in the past the state appropriation was dropped; just when is not clear from the records. At the 63rd annual meeting, financing was getting serious enough to be discussed. A resolution at that meeting instructed the executive committee to study the situation and The response to this was a raise in dues from recommend a solution. \$3 to \$5, effective January 1963. But more was needed, and the move of the meeting site from the Alexander Hotel to the Venice Motel in Hagerstown was motivated in part to acquire some exhibit space for a trade show, fees from which would help support the Society. At the 72nd annual meeting, it was indicated that area societies from New Jersey to Virginia were talking about the possibility of joint The MSHS was interested because a joint annual meetings. meeting would enable the groups to finance outstanding speakers from afar, something the MSHS was finding it increasingly impossible to do. Commercial firms of all kinds were actively interested in this consolidation, because larger meetings meant more efficiency in financing the display of their products. Out of these talks came an alliance with the New Jersey and Virginia societies to hold a joint meeting for a period of three years, and revision of Society by-laws to accommodate going out of state for the annual meeting. The first joint meeting was held at Roanoke, VA, for the 75th annual meeting of the MSHS. Total registrants at Roanoke were 409; of these 69 were MSHS members, a creditable showing considering the distance Marylanders had to travel. The next two meetings were held in Baltimore at the Civic Center and the Hunt Valley Inn. It was a successful alliance, if short term. Virginia growers would not travel to Baltimore in meaningful numbers, so the Virginia society decided not to renew after the three year agreement was concluded.

This brought about an arrangement with the New Jersey and Pennsylvania societies that has prevailed to this day. The first meeting of this group was held at the Sheraton Inn, Gettysburg, for the 78th annual meeting of the MSHS. At this meeting 90 MSHS members registered. After three years at Gettysburg, the site was moved to the Hershey Convention Center at Hershey, PA, where the annual meetings have been held ever since. The union with New Jersey and Pennsylvania has been of benefit to all societies, and surely the Hershey Center has provided the best accommodations ever for this type of meeting. We have enjoyed well appointed meeting rooms, excellent indoor accommodations for an extensive trade show, and ample overnight accommodations in the same complex. The joint meetings have also improved the financial position of the MSHS, and have made possible the financing of some outstanding speakers.

A perusal of some Society business and resolutions reveal a wide scope of activity during the modern years. At the 1946 meeting members were polled regarding an apple tax for advertising. An affirmative vote led to Society action in promoting the Apple Merchandising Law which was passed by the next legislature. This law established the Maryland State Apple Commission, and was based initially on a tax of one cent/bushel, U.S. #1 Canner grade or better sold in commercial trade, the first 500 bushels exempt. J. P. Caspar headed the initial Commission for a number of years, and explained the Commission in detail at the 1947 meeting. Α resolution in 1946 reflects the weakness of voluntary contributions to support the Appalachian Apple Service, this directing the president to appoint a committee to draft a bill forcing equal participation in support of apple advertising. However, the AAS was founded on a voluntary contribution basis, and folded in 1962 after 26 years of operation due to lack of support. Secretary Vierheller had repeatedly urged Maryland growers to keep up contributions, and most did. But in the end the AAS failed because one of the four states had dropped out completely, two others made no effort to contribute on a sustained basis, leaving Maryland as the only state from which funds were consistently available. A resolution in 1953 reflected growing concern over water as more growers got interested in irrigation, and asked the Farm Bureau Legislative Committee to urge that water rights of communities and individuals be defined. In 1958 the Society endorsed the idea that a growers' bargaining association from the four states offered the best solution to current stress in canner prices.

The growing menace of deer inspired a 1960 request that an antlerless deer season be established. This request was repeated over several years, with additional requests for a bow and arrow season, and, as the problem became more severe, for clearance for farmers to shoot animals caught in the act of destroying their crops. These resolutions were unheeded, as sportsman outnumbered fruit growers, and thus for the legislature sport was more important than fruit growing. Another 1960 resolution asked that all nursery stock sold in Maryland be labeled as to rootstock and interstock.

A new concern surfaced in a 1962 resolution asking that CBS give a fair and impartial discussion on pesticides in foods in a documentary on the new book "Silent Spring", a book which gained instant fame criticizing the use of chemicals in agriculture. It was the beginning of an assault still going on by environmentalists, few or none of whom are carrying any responsibility for feeding the nation. An allied resolution in 1965 condemned the zero tolerance recommended by EPA for residues on food crops. The Society favored the National Academy of Science recommendation for "negligible tolerance and specific tolerances as determined by toxicological studies."

Labor problems continued during these years, with domestic labor for harvest becoming more and more elusive. A 1966 resolution asked the governor and MD representatives in Congress to give full support to making available an adequate supply of foreign labor for harvest. At that time the long standing concern over grades resulted in Society-sponsored legislation which changed Maryland apple grades to conform to USDA grades, the bill signed by the governor on April 21, 1967. The next year a committee was appointed to study the constitution and by-laws, and to recommend an update based on present day conditions. Revision was approved at the 72nd annual meeting, the first revision in 70 years.

In recent years the Society has been in direct and sustained communication with the University. An Advisory Committee has met annually with Department of Horticulture personnel for about a dozen years to review fruit research projects and plans, and to transmit Society views on specific problems in fruit production. In these meetings strong views were expressed repeatedly about the 10-year delay in selling the Plant Research Farm, and the delay in acquiring new land in Western Maryland for the new facility. When the surplus property near Sharpsburg was acquired, the Advisory Committee was active in supporting funding and development of the Center. As senior faculty retired some vacated positions were taken from the Department and funds assigned to positions elsewhere. This gave rise to the Maryland Horticultural Council five years ago, a group made up of representatives of all horticultural industries of the state, two of them from the MSHS. This Council has met with the administrators from time to time, monitoring the University situation for Horticulture, and pressing for refilling specific positions and for sustaining teaching and research programs in horticulture. In these days of severe budget limitations for all public agencies, the Council has kept horticulture in the forefront of University thinking and planning.

Resolutions have accompanied this committee activity. Over the last 15 years resolutions have called for prompt disposal of the Plant Research Farm, for acquisition of new land for research in fruits, for small fruits research, and for a virus indexing program. Resolutions have been aimed also at the USDA calling for action in setting up the proposed regional fruit research laboratory near Kearneysville, WV, for support of the National Peach Council request for research on thinning of peaches, peach rootstocks and peach breeding. The Society also successfully insisted on the replacement of retired Dr. D. H. Scott, Beltsville, with a competent small fruits scientist.

Joint meetings have revived the MSHS treasury sufficiently to enable the Society to do more than talk. Fruit growers throughout the world have been funding research of interest to them as public budgets decreased. Thus at the 84th annual meeting, the Society began to use funds for the first time to support specific interests. A detailed accounting was presented, outlining grants as follows:

- \$1,250 Fruit trees for Research Center, Sharpsburg
- 500 Peach trees for a variety trial
- 2,000 Orange rust screening program in brambles
- 2,250 Computerized controls for herbicide spraying, Research Farm
- 500 Travel expenses of the Society Secretary
- 3,000 To Legal Defense Fund in current wage and hour suit concerning alleged non-payment of overtime to farm workers

Grants for specific purposes have continued, but are not as well-documented in published Society reports. Among grants made in 1986 was one for \$3,000 to C. S. Walsh for cherry rootstock studies, and \$6,000 to pathologist Paul Steiner for a weather monitoring computer. In the spring of 1987, the executive committee granted an additional \$2,000 to Walsh for rootstocks studies, and \$1,000 to Steiner to maintain computer equipment.

The Society has undertaken other obligations as well. Contributions have been made to the International Dwarf Fruit Tree Association, and the Department of Horticulture Memorial Fund. Three years ago the Society established an annual travel grant of \$500, available to a member 30 years old or younger, to support travel to some out-of-state objective in order to enlarge horticultural horizons of that young person. In 1983, Secretary Walsh initiated the publication of an annual supplement to the quarterly newsletters, a valuable annual publication which contains Society business, a membership roster, and major papers given at the joint winter meeting. The Society is paying the secretarial costs for this publication, thus undertaking for the first time payment for paper work of the Society heretofore supplied by the University in one way or another.

Ninety years is a long time, and those of the MSHS have spanned the years of greatest change in the history of mankind. In this period the world has moved from the horse to space travel, from the adding machine to the super computer. The shift in the position of agriculture during these years is epitomized in our own Society In a 1967 Maryland Fruit Grower, Weamert and Gienger records. offered some ground rules for movement of farm equipment on public In contrast to Leo Cohill's motortruck getting boxed roads today. behind teams and wagons on public roads in 1918, these Extension specialists warned growers to have equipment well marked, to travel only in daylight, and to stay out of the way! In many ways, agriculture has shifted from the position of a political giant to that of a political pygmy. And while our voice in legislative halls is muted, problems remain, none more sinister that the steady loss of effective chemicals by decisions of the EPA. Some compounds have been banned for sound toxicological reasons, but we are now in the age of being deprived of legal, useful chemicals because of scare stories in the media inspired by environmentalists. Alar is the glaring example of this phenomenon. After 25 years of safe and effective use, and with no data at hand to demonstrate the chemical

unsafe, Alar was not used in 1986 simply because processors and major retail chains were afraid to buy Alar-treated fruit, and they said so early in the season. This is but an example of the serious problems facing fruit growers today. But, in the context of history, is this any more serious than San Jose scale in 1898?

Through two wars, through a long depression, and through periods of great prosperity, the MSHS has served fruit growers of the state well. And the MSHS has been served well by hundreds, especially by a succession of secretaries, the unsung heroes who execute the year-to-year detailed work of the Society. The Society has shifted with the times, has been alert to the complexities facing the fruit industry, and has been an effective voice for all in advancing and protecting the vital interests of this industry. To paraphrase Longfellow, the MSHS has left its footprints in the sand...

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# APPENDIX

# PRESIDENTS OF THE SOCIETY

1898 1899-1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919-1920 1921 1922 1923-1924	Charles G. Biggs J. S. Harris R. S. Emory J. W. Kerr A. L. Towson W. F. Allen E. P. Cohill Orlando Harrison C. L. Seybold W. M. Brown Richard Vincent J. S. Harris George Morrison E. P. Cohill R. L. Graham A. W. Sisk I. H. Moss R. B. Thomas W. J. Johnston A. P. Snader C. E. Bryan J. A. Cohill H. C. Whiteford
1925	W. Lee Allen J. W. Englar
1920	G. H. Harrison
1928-1929	E. D. McCain
1930	Albert Allen
1931 <b>-</b> 1932	G. S. L. Carpenter
1933	W. E. Withgott (died in February, succeeded by R. C. Hanson)
1934	R. C. Hanson
1935	F. W. Allen
1936 <b>-</b> 1937	C. E. Bryan
1938 <b>-</b> 1939	G. W. Gardenhour
1940 <b>-</b> 1941	J. G. Harrison
1942 <b>-</b> 1943	S. M. Fulton
1944 <b>-</b> 1945	D. T. Walker
1946 <b>-</b> 1947	Lloyd Balderston
1948 <b>-</b> 1949	M. T. Heaps
1950 <b>-</b> 1951	J. P. Caspar
1952 <b>-</b> 1953	R. S. Dillon, Jr.
1954 <b>-</b> 1955	W. C. Main
1956 <b>-</b> 1957	N. J. Fike
1958 <b>-</b> 1959	D. E. Rinehart
1960 <b>-</b> 1961	G. M. Miller

#### PRESIDENTS OF THE SOCIETY CONTINUED

1962 <b>-</b> 1963	R. K. Gardenhour
1964 <b>-</b> 1965	Clay Shaw
1966-1967	E. W. Hepburn
1968 <b>-</b> 1969	R. M. Allen
1970 <b>-</b> 1971	J. H. Rinehart
1972 <b>-</b> 1973	Harry Black
1974 <b>-</b> 1975	T. Stegmaier
1976 <b>-</b> 1977	A. H. Lohr, Jr.
1978 <b>-</b> 1979	G. J. Stadelbacher
1980 <b>-</b> 1981	G. H. Butler
1982 <b>-</b> 1983	A. J. Rubino
1984 <b>-</b> 1985	E. B. Milburn
1986 <b>-</b> 1987	J. R. Martin

SECRETARIES OF THE SOCIETY

1989 <b>-</b> 1900	Ψ.	G.	Johnson
1901	н.	Ρ.	Gould
1902	Α.	L.	Quaintance
1903 <b>-</b> 1905	J.	Β.	S. Norton
1906-1909	с.	Ρ.	Close
1910-1918	т.	в.	Symons
1919 <b>-</b> 1925	s.	в.	Shaw
1926-1927	G.	R.	Canby
1928	G.	R.	Canby, A. F. Vierheller
1929 <b>-</b> 1962	Α.	F.	Vierheller
1963 <b>-</b> 1971	G.	J.	Stadelbacher
1972 <b>-</b> 1973	G.	J.	Stadelbacher, B. L. Rogers
1974 <b>-</b> 1980	R.	с.	Funt, B. L. Rogers
1981 <del>-</del>	с.	s.	Walsh

G. R. Canby was a Montgomery County fruit grower. All other Secretaries were on the staff of the State Horticultural Department, Maryland Agricultural College, or the University of Maryland

#### ANNUAL MEETING SITES

1898	Baltimore	Pacific Hall
1899	Baltimore	Maltby House, Assembly Hall
1900 <b>-</b> 1903	Baltimore	Dushane Post Hall
1904	College Park	Maryland Agricultural College
1905	Baltimore	Johns Hopkins University, McCoy Hall
1906 <b>-</b> 1916	Baltimore	Fifth Regiment Armory
1917 <b>-</b> 1918	Baltimore	Hotel Emerson

1919	Hagerstown	Courthouse (with Farmers'
1920	Salisbury	Arcade Auditorium
1921	Baltimore	Southern Hotel
1922	Frederick	Empire Opera Hotel
1923	Baltimore	Southern Hotel
1924	Cambridge	Courthouse
1925-1927	Baltimore	Odd Fellows Hall
1928	Baltimore	Roval Arcanum Building
1929-1931	Baltimore	Lord Baltimore Hotel
1932-1934	College Park	University of Marvland, new
		Horticulture Building
1935-1936	Hagerstown	Alexander Hotel
1937	Baltimore	Lord Baltimore Hotel
1938	Frederick	Armory
1939-1941	Hagerstown	YMCA Auditorium
1942-1965	Hagerstown	Alexander Hotel
1966-1971	Hagerstown	Venice Motel
1972	Roanoke, VA	Hotel Roanoke (joint with VA and NJ Societies)
1973	Baltimore	Civic Center (joint with VA and NJ Societies)
1974	Baltimore	Hunt Valley Inn (joint with VA and NJ Societies)
1975-1977	Gettysburg, PA	Sheraton Inn (joint with PA and NJ Societies)
1978-1987	Hershey, PA	Hershey Convention Center (joint with PA and NJ Societies)

# SOME SIGNIFICANT MILEPOSTS IN THE EVOLUTION

### OF THE MARYLAND FRUIT INDUSTRY

#### 1896-1987

- 1896 Legislation creating position of State Entomologist
- 1898 Founding of the Maryland State Horticultural Society
- 1898 Creation of the State Horticultural Department, providing for a State Pathologist and State Horticulturist in addition to Entomologist
- 1900-1910 Replacement of bucket and barrel pumps with high pressure pumps for spraying
- 1900-1920 Replacement of the horse with internal combustion engines in trucks and tractors
- 1914 Cooperative Extension Service

- 1914 Development of the pressure regulator in power spray systems by Bean Spray Pump Company
- 1917 Federal inspection service in terminal markets
- 1918 Discovery of storage scald control with mineral oil-impregnated shredded paper or fruit wraps
- 1926 Federal inspection service started at shipping points in Maryland
- 1939 Naphthalene acetic acid sprays for control of preharvest drop of apples
- 1940 The air blast sprayer
- 1942 Chemical spray thinning of apples
- 1946 DDT
- 1950 Herbicides
- 1958 Introduction of the bulk bin from New Zealand
- 1959 The Miller Act (establishing EPA)
- 1970's Low volume spraying
- 1970's Trickle irrigation
- 1970's Dwarfing rootstocks and more intensive plantings of apple trees
- All years Throughout these years, significant improvement has been achieved with introduction of better cultivars, especially in peach, strawberry, blueberry, and brambles. These have come from nurserymen, private individuals, and from Federal and state fruit breeding programs.

