INTERPRETING FORESTRY TO THE LAYMAN¹

BY J. L. VAN CAMP²

This session of the Joint Meeting between the Technical Foresters of the United States and Canada is rightly concerned with the professional education of those students who will obtain university under-graduate or graduate degrees in Forestry. The viewpoint on Forest Education to which I would like to contribute is that of making the actions and objectives of foresters plainly understood, and fully appreciated by the man in the street. Perhaps I should say also, by the man in the woods. I will attempt to summarize some of the techniques which have been successfully used to accomplish this desired aim. I am probably better equipped, by my experience over the past quarter of a century, to speak for the *layman* than for the teacher or the forester practising in management or research. At one time or another I have been on the staff of universities, in which Dean Sisam, Prof. P. A. Herbert and Dr. E. R. Martell are now active. However, the bulk of my professional experience, during the period 1928 to 1952 inclusive, has been devoted to assisting farm woods owners, or the city dweller with forested properties. You will see that this has given me some contact with Faculties of Forestry on both sides of the International line. It has also given me an opportunity for liaison between the findings of professional foresters and their application, when proven practical, on the privately-owned lands of laymen concerned with the development and management of forest crops.

I would like to include reference to the education of city and rural youth in basic forestry and conservation ideas. Education of adult woodland owners is important. In many cases, results are seen in immediate adoption of recommended practices. However, the continuous education of the youth of both countries is equally essential, to guarantee a public well disposed to forest conservation. The constant trend toward a larger urban population makes education of children in city schools increasingly important. Training which many of us received as a matter of course, because of farm upbringing, or pleasant periods spent on farms operated by our parents or grand-parents, is becoming a rare commodity in the background and mental attitude of Canadian and American citizens. This, coupled with the increasing use of recreational areas by a public having shorter working days and weeks, and easier means of access to wilderness areas, makes it imperative that the question of resource education for youth be kept high on our list of priorities.

You will recognize by the next statement, which I consider the fundamental element of this paper, that I have been associated with Extension Service teaching, and also with Tree Farm, Zone Forester or Farm Forester activity. The statement is: "A good demonstration which the layman can see, or in which he can take part, is the most effective means of enlisting his support and active participation." I give due respect to the importance of other teaching techniques, from the classic lecture room to the latest use of television. It is still essential, in my opinion, that as many practical and economic demon-

¹ Presented before the Technical Session on Forestry Education, of the Joint Meeting, Society of American Foresters and the Canadian Institute of Forestry, Montreal, Canada, November, 1952.

² General Manager, Canadian Forestry Association.

strations as possible be established by foresters, within range of the citizens they hope to influence favorably towards forest and natural resource conservation.

Professor P. A. Herbert, as discussion leader for this paper, may refer to some of the effective teaching devices in the vicinity of Michigan State College. I would like to refer to the famous *pinetum* established on the campus as one of the early demonstrations which impressed me greatly by its popularity with the people living near the capital of Michigan. It was my good fortune to obtain my first employment in the United States on Professor Herbert's staff in 1932. One of my duties was to oversee the maintenance and management of this well-developed stand of white pine, established by Professor Beale in an abandoned gravel pit just before the turn of the century. When I first saw this area some forty years later, it had changed its status from the position of "Beale's Folly" to one of the venerated land marks of the campus and community. It was a point of pride for alumni of Michigan State College, whether Forestry graduates or not.

The foresight displayed by the administrative officers of this college in developing the *pinetum* was also evident in the 32 acres of sugar bush land, located even closer to the formal portion of the campus.

Going farther afield the State College has been successful in convincing wealthy cooperators to donate land and endowment funds to develop forestry farms. These are now outstanding demonstrations of tree planting results and woods management for increasing groups of visitors and formally conducted tours. With the success obtained in this direction by the Agricultural Experiment Stations, it is somewhat surprising that there are not more comparable areas in forestry farms, where the correct practices and the successful results of tree planting, forest management and utilization may be effectively demonstrated to interested groups of citizens.

Demonstrations have existed in Canada for many years, notably those established near St. Williams in Norfolk County on the north shore of Lake Erie almost directly north of Erie, Pennsylvania. This area was first planted with pines to control moving sand dunes. The present Dean of Canadian foresters, Dr. E. J. Zavitz of the Ontario Dept. of Lands and Forests, established these pines, now nearing harvest age. Thinnings are already being removed at values far in advance of the most optimistic estimates of the planters. Norfolk County planting demonstrations are paralleled by somewhat later plantations, fifty miles north of Toronto at Midhurst, and fifty miles east of Toronto at Orono. Similar shifting sand at one time seemed an insuperable problem here as well.

One other demonstration should be noted here for record, namely the Forest Farm at Indian Head, Sask. This was established shortly after the turn of the century by Norman M. Ross, First Superintendent of the Tree Planting Division for the Dominion Forest Service. A square mile of trees, hedges, shrubs and small fruit plants established at that time, now stands as a monument to the vision of the Department and its early staff members. From its example have spread the practices of field shelter and farmstead planting which have placed over a quarter of a billion trees on prairie farms and homesteads

in the three Canadian provinces alone. Other plantings, which helped to cure the 'Dust Bowl' conditions of the American mid-west in the thirties, partially stemmed from this early demonstration, and from similar plantings at Mandan, North Dakota and other pioneer Western tree planting stations.

Unless this should appear to be a recital of tree planting demonstrations alone, I would like to cite instances of management of existing woodlands which have become equally valuable as teaching tools. However, planting demonstrations require consideration. They are often the most easily established of all forestry demonstrations, and equally easy for the private owner to develop. They often create enthusiasm for other phases of natural resource conservation to a degree which may amaze the practising forester. Many of us become blasé about tree planting, from frequent contact with this elementary forestry practice.

One of the first areas in which I became acquainted with extensive demonstrations of privately-owned woodlands under management was on my arrival in Indiana early in 1936. From a total of something over three million acres of land in the Hoosier State, classed as ultimate forest land, there was at that time, more than 100,000 acres under the special title of classified forest. These were all on privately-owned land and ranged in size from three acres to one tract of over 500 acres in extent. When it is realized that much of this forest was on fertile agricultural soil on which neighbouring fields produced 100 bushels or more of corn per acre, the demonstration becomes all the more remarkable.

I would hasten to add at this point that much of the management on this area was of the simplest order. It consisted in many cases of nothing but protection from injury by grazing of domestic animals, from fire and over-cutting. Nevertheless, the existence of this impressive acreage of better-than-average timber, and the dedication of this percentage of valuable agricultural land for production of forest crops was enough to arrest attention.

Credit for the introduction of the law which induced private owners to establish and maintain these demonstration farm woodlots is rightly given to Charles C. Deam, a self-taught botanist and forester who held the position of State Forester for the State Department of Conservation in Indiana for many years. At the present time, although close to 90 years of age, he is active in the Botanical field. He has in fact, just completed a revision of his monumental volume on the Flora of Indiana, in cooperation with the Department of Forestry and Conservation of Purdue University of which Dr. Martell is chief.

State Forester Deam conceived the idea of attacking the prime enemy of the privately-owned farm woods in Indiana, namely injury due to grazing by domestic livestock. The law passed in 1921 permitted a bonus to the owner, amounting to practical tax exemption, in consideration for the permanent removal of all grazing livestock from the forested area. Inspection of each tract was made by State forestry officials at the time it was submitted for entry under the Act. Annual inspections thereafter checked compliance. In addition, these annual visits permitted foresters to confer with the owner about managing and marketing his timber. He was also placed on a mailing list to receive information as it was distributed from the Department.

While tax exemption as a bonus for protection or management is quite debatable, especially when carried to the point of including a high percentage of a territory, there is no question that the demonstrations encouraged by this Indiana law have grown in number and in area during the period of 32 years since the law was established. Moreover, tax reduction, in the majority of cases, is *not* the determining factor which keeps these tracts of timber under protection or improved management by the owners. In many cases the obvious improvement in advance reproduction a few years after fencing, and the vigour and increased growth of the timber in protected areas, compared with grazed woodlots nearby, is the factor which makes active converts of the owners.

It is notable that during the war years, when high quality hardwood timbers were in urgent demand by the U.S. Navy and other war industries, that the bulk of the material in large sizes and high qualities was available from selective cutting on the 100,000 acres of classified forests of the state. A much smaller percentage was available from the poorly stocked, defective and diseased tracts of timber on which intensive grazing by domestic livestock had been permitted to continue, in woodlands not classified under the grazing protection law.

When it was found possible to begin the establishment of demonstration forests, with more advanced management practices, it was logical that these classified forests should be selected for demonstration teaching to private owners. Today the four district extension foresters directed by E. J. Lott, from the Department of Forestry and Conservation at Purdue, each have several cooperators in the counties which they are operating. These farm woodlot owners have received an inventory and a detailed management plan for their timber, presented in simple and pictorial form for understanding and use.

Growth study plots, for periodic re-measurement, are located on most of these demonstration farm woodlots. Results collected are interpreted in co-operation with the Forest Experiment Station staff. Meetings organized by the county agricultural agent or by county farm forestry committees, where these have been developed, use the demonstration woodlot and the cumulated data to encourage extension of these practices by neighboring owners to their own farm woodlots.

A similar technique in Ontario and Quebec has been practiced by the Extension or Zone Foresters of the two departments concerned. I. C. Marritt was the pioneer in woodlot management demonstrations for Ontario, under the direction of Deputy Minister Frank MacDougall, a Toronto Forestry graduate. We have seen this system expand to cover most of settled southern Ontario, with a strong working force of zone foresters. Mr. Roch Delisle of the Quebec Department of Lands and Forests, with a staff of ten field men, is doing equally effective work through the eastern Townships of Quebec, and in other areas where woodlot owners of the province have holdings.

The paper I am presenting has concerned itself somewhat closely with government or university directed educational work for the public. The modern trend is toward greatly increased demonstration activity by industrial foresters of the United States and Canada, and toward practical service by consulting foresters on a fee basis. I will not have time to mention, let alone outline, the

activities represented by the American Tree Farms System, the work of the many conservation associations privately financed and staffed, nor associations such as the New England Forestry Foundations which are providing demonstrations on a partially subsidized basis through the use of public and privately contributed funds.

It may be permitted me to mention some comparatively recent developments in Canada, since these as yet have not been as well publicized as the longer established operations in some of the states to the south of us. Within recent weeks, the government of British Columbia has announced the establishment and certification of three Tree Farms, two of them of comparatively modest acreage under private ownership, and one of over 20,000 acres granted to MacMillan and Bloedel Limited. The latter is well known in industrial forestry in the province of British Columbia. Similar interest is arising and crystalizing in several sections of the East. We are hopeful that Canadian Tree Farm programs will be given added public recognition to hasten the spread of this desirable practice of operating forest lands for continuous forest production.

In addition to the Tree Farm recently certified for MacMillan and Bloedel, there are at least three industrial forest farms which have come to my attention in Quebec and Ontario, and there are others in the Maritime Provinces of Canada. The Ontario Paper Co. has purchased approximately 75,000 acres on Manitoulin Island and is developing this land for continuous production of forest crops. Several foresters are employed full time. Their duties include assistance to owners of woodlands in that vicinity. Improving their standard of woodlot management and assisting the schools of the area to understand these management activities through conducted tours and field demonstrations is good business in the minds of company officials.

The Canadian International Paper Co. is developing a forestry farm on 9,000 acres of its own land and on operating limits, north of Hawkesbury, Ontario, mid-way between Ottawa and Montreal. They have developed a profitable market at the Hawkesbury mill for low grade material, of practically all species. Demonstration work under the direction of M. R. Wilson and that which they encourage on private forest lands in the vicinity, is a paying proposition even on forest land not fully stocked. This is almost the ideal condition for early adoption of good management practices by the private owner. The company and its far-seeing Vice-President, Vernon E. Johnson, and Woodlands Manager, Fred A. Harrison are to be congratulated on the development of the market and the foresight in providing technical assistance to woodland owners of the vicinity.

Howard Smith Paper Mills Ltd. with an area of some 30 square miles of timber close to their Windsor Mills plant, have been operating this industrially owned tract for sustained yield for some time. It is a favorite place for meetings of professional groups and interested private owners. The active Eastern Townships section of the Quebec Forestry Association, with the Woodlands Section of Howard Smith Paper Mills Ltd., use this demonstration area for the teaching of sustained yield practices applicable to that territory.

In the concluding portion of this paper I shall mention a few of the

cases where education of Canadian and American youth has been accomplished by practical field demonstrations in forestry and conservation. One of the closest to our present location is that developed over the past ten years by the Quebec Forestry Association for the members of its 4-H Forestry Clubs. These boys and girls are given practical instruction in problems ranging from fire prevention to the establishment of plantations and management of farm woods. In recent years it has been the objective of each club to own and manage a 'bocage', a grove where practical lessons in forest management and protection may be practiced by the members of the club. The Sixth British Commonwealth Forestry Conference arranged its Quebec tour in mid-August to attend the annual Congress of the Quebec 4-H Clubs, a tribute to the position which they have attained in rural youth education.

Looking southward, the 4-H Forestry programs conducted under the supervision of the United States Department of Agriculture from many agricultural college campuses, give similar field experiences to the Forestry and Conservation members enrolled. The program has proven so popular that at least one large industrial firm has sponsored and financed special camps for conservation teaching, in more than half of the states of the Union. In addition, youth camps where practical forest management is demonstrated are now financed and conducted by many of the industrial forestry associations from coast to coast. In Canada, this type of camping for practical field instruction of Canadian youth has been conducted by the Ontario Paper Co. on its Manitoulin Island territory mentioned earlier. In connection with school forests and organized school activities, field trips and excursions are sponsored by most of the Provincial departments of Lands and Forests, and companies engaged in lumbering or pulp and paper manufacture.

The Canadian Forestry Association, with which I have the honour to be associated, has developed one of the most effective forestry training courses for Canadian youth. The program was developed by our British Columbia Branch for their Junior Forest Wardens. Over 5,000 boys have now completed the training in these camps, and many are active leaders of Junior Warden groups or engaged in practical forestry operations in their home territories as a result.

The Canadian International Paper Co. developed the nearest substitute for a personal trip to the woods which it has been my privilege to observe. This is the beautifully illustrated book which I have before me entitled "These Are Your Forests". This is a pictorial and documentary account of an actual trip given to a fifteen-year-old French Canadian boy over the operations of the Canadian International Paper Co., Gatineau Division, personally accompanied by Vice-President Johnson. Reading this story and looking at the carefully selected illustrations is the nearest substitute for an actual trip in the Canadian woods which I have seen in print.

I would urge the use of practical forestry demonstrations for teaching. They should be carefully planned and attractively presented, as frequently as possible. They should be within easy reach of the cooperators for which they are intended, reducing travel and emphasizing local conditions. In common with all good teaching, demonstrations should be made easily available for

participation by the cooperator, should arouse favorable interest and demonstrate a practical solution to a problem which is important to the cooperator. They should provide a solution he is capable of practising on his own land. Finally, these demonstrations should provide an incentive which will cause the cooperator to take the desired action.

This is merely good public relations in action by foresters, in the cause for which they are striving. Like all good public relations, it should be teaching which is not recognizable as teaching, but seems a good idea which will be of real advantage to the person concerned.

Director Roy Hoffman of the Agricultural Extension Service at Purdue University is nationally known for his administrative ability and leadership. As a good director, he is frequently in the field observing the technique of his staff, from an unobtrusive position, to make practical and useful suggestions to them later. On one occasion he was listening from the back of the hall while John Schwab, the Dean of all Extension workers at Purdue was giving one of his inimitable talks to a county-wide meeting of farmers. As usual, John was getting across his good ideas for improved practices by showing enthusiastically how folks in that neighborhood, whom he called by name, had made use of simple and inexpensive devices, to improve production and cash income. After John had been speaking for some time, and commanding the full attention of his audience, Director Hoffman overheard what might be considered the perfect testimonial for a good teaching demonstration. A farmer in the row ahead leaned to his neighbor and said, "that fellow's alright—he's got some of *my* ideas".

I have summarized the ideas of a great many effective demonstration teachers, whom it has been my privilege to know. I hope the combined efforts will result in the establishment of many more outdoor teaching laboratories, practical demonstrations of the forester's art, cut and tailored to the laymen's measure.