

meet together would make it possible for all the fruit breeders at one location to learn methodology from each other, regardless of the type of fruit with which each may work.

When the idea of the meeting was first aired, the response was good so we organized it. We thank all the participants and those who attended

the meeting. They contributed experience and ideas which made the meeting successful. We are grateful to the *Fruit Varieties Journal* for publishing the summaries of the papers presented. Credit is also due to Drs. A. D. Draper, H. W. Fogle, J. R. McGrew, D. H. Scott, and T. van der Zwet who helped to organize this meeting.

Protection and Distribution of New Selections in Domestic and Foreign Markets

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I. Introduction

Historically, breeders of vegetatively propagated fruit crops, such as apple, have simply released their new selections for propagation and distribution without regard for control of such distribution or financial return therefrom. In more recent years it has become more common for nurserymen to purchase the rights for new apple cultivars and then to patent these selections on an exclusive basis. Fruit breeders working for public institutions have made little, if any use of the patent laws to control their new varieties, but some have arranged outright sale of such new varieties to private industry or have had some informal relationship between a large nursery. Even today the use of patent protection for other fruit varieties such as peach, plum, apricot, nectarine, etc., is quite uncommon.

For several years prior to the release of our first scab immune apple selection ('Prima', 1969) we had offered 5 of our best selections as Coop numbers for grower testing and had

sent these out to cooperatives in other states for variety trials. The reactions from commercial nurserymen were rather surprising to us. With the strong personal conviction that we had a marketable variety of considerable interest to growers — it was a real shock to understand that the larger commercial nurserymen, although displaying a polite, verbal interest, had really little or no enthusiasm in propagating, promoting or selling such varieties. It soon became obvious that the real profit in the fruit tree nursery business is the new, superior strains and varieties which an individual nursery can maintain and promote on an exclusive basis and sell at premium prices and we had no way to limit the distribution of our scab immune varieties. Nurserymen were unwilling to invest considerable money to promote a new variety if every other nursery could then take advantage of the demand and offer the same variety at a reduced price without expending promotional costs. The only logical solution for us was to take advantage of the patent protection.

II. Obtaining Plant Patents

The procedure is really not very difficult but due to the precise language required and the advantage of having someone who knows the procedure we feel it is a good idea to turn the whole procedure over to an experienced patent attorney. Average expenses, for us, have been between \$1500 and \$2000 per patent including the patent fees, lawyers fees, and administrative overhead.

In our particular case and especially since there were three institutions involved, we have assigned all patent rights obtained under this project to the Purdue Research Foundation which administers all patents assigned to Purdue University. The Research Foundation retains a patent lawyer and other legal assistance and takes the additional responsibility of drawing up license agreements, collecting royalties, etc. Only out-of-pocket expenses are retained by the Foundation and the balance distributed equally to the participating institutions. It should also be pointed out that the Foundation is responsible for the prosecution of any cases of patent infringement reported and fully intends to exercise this right if the need arises.

III. Domestic Use of Plant Patent Protection

Once the plant patent has been obtained then the patent holder must select some system of distribution of the protected variety. Such a system may be the actual propagation of trees or the direct sale of propagating wood, seed, etc., by the patent holder to any and all purchasers, or it may involve an outright sale of propagation rights with or without assignment of patent rights to a commercial nursery or seed house. In our particular case, we chose to retain the patent rights and to license selected nurseries to propagate and sell our new varieties on a royalty basis. We have chosen not to

grant any exclusive licenses in order to obtain as wide a distribution as possible while at the same time limiting the number of licensees so that they would still have sufficient market available to justify their cost of promotion. We also have made it possible for our primary licensees to sublicense other commercial nurserymen for the sale, but not the propagation, of these varieties in order to further broaden the market base.

Total sale of trees of each variety and the royalty on such sales are reported annually to the Research Foundation with provisions in the license agreement for an audit of the licensee's sales records if that should be deemed necessary.

To date this system seems to be working reasonably well and I can report that the sale of our new varieties is increasing yearly and that most growers have been able to obtain the varieties if ordered in reasonable time. Our licensees seem pleased with the demand, and I believe they are also satisfied with the present arrangements.

IV. Foreign Markets and Distribution

We have spent much time trying to formulate a policy on foreign marketing of our new apple varieties, and have finally concluded that no single policy is possible.

It would seem much simpler, in view of the confusing situations in other countries, to simply supply the material and forget it. This, however, does not seem quite fair to our own growers if we ask them to pay a royalty fee while giving the rights away free to other countries.

We have decided, therefore, to handle each individual country in the manner which seems most compatible with their laws and established customs and with our own desires to

maintain as much control as possible and to return as much as possible financially to the research project.

In the European Common Market Countries (France, Belgium, Holland, Germany, Denmark and England) there are some individual legalities such as National Fruit Trials, etc., which do establish some breeders rights but do not necessarily provide a base for royalty payments. There are also negotiations presently underway in these countries to establish plant patent protection and mutual reciprocity for respecting the other's patented material. There are also some international negotiations underway with the United States which may eventually lead to a treaty providing for this reciprocal protection for breeders in all of the countries concerned. At present, the standard practice seems to be to select the most honest progressive nurseryman in each country and to individually negotiate an agreement with him for propagation rights in return for his going through the patent procedure as your representative with the hopes of a minimal royalty payment.

Most other countries have no protection of any kind and, in fact, the free propagation of any and all varieties seems to be the order of the day. In some countries, like Italy, nothing can be protected and no one seems to even try. Australia is another interesting case where the laws of the country forbid any exclusive arrangements and any plant material sent into the country must be freely available to all. This effectively stifles importation by private industry but also prevents

even the scientific cooperators from bringing in material for testing if the breeder requires a nonpropagation agreement. This phase of their law is currently being reconsidered. Japan is another country where there are no safeguards and here we are negotiating directly with one of the food processors for an exclusive right on an annual contract basis.

Finally, we are presently involved in negotiations with Yugoslavia. We were pleased to find that there are no serious State Department objections or road blocks and that we could negotiate directly for the outright sale of rights on a one time, cash on the barrel head deal for two of our varieties. The trees will be propagated in state nurseries and distributed to cooperative farms throughout Yugoslavia and also sold direct to Bulgaria.

V. Conclusions

In conclusion, I can only report that there is still considerable confusion and many problems associated with the protection of new apple varieties both domestically and in foreign markets. In spite of these problems, however, the use of plant patents domestically do offer certain clear cut advantages. They offer some protection and incentive to the propagator which results in better exposure and more widespread distribution and they also offer a continuing source of funds to perpetuate the research program. This is essential at a time when other sources of research funds are on the decline or insufficient to meet the expanding costs of a vigorous research program.