TECHNOLOGY TRANSFER TO THE FARM FIELDS OF SASKATCHEWAN

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"Research and Extension have been separated for too long." This is a comment from Dr. Brian Fowler, University of Saskatchewan, Saskatoon.

Let's look at the research and Extension era from 1945 to 1965. At this time the University of Saskatchewan was active through their Extension Division in rural Saskatchewan. After the war in 1945, a limited number of Agricultural Representatives started under the Saskatchewan Government as Extension workers. Farms were close together and neighbours were in contact with one another on a regular basis. At the start of the 1950's, technology was relatively simple. 2-4,D was the only herbicide on the market. This was a great break through in farming technology. Research was related to the types of soils, the variety of crops and the development of these crops that would grow better on Saskatchewan soils. Life, research and Extension activities were relatively simple up to this time, but times have changed.

What was the role of an Extension worker during this period of time? The role was and is, to take the information garnered by the researchers and relay it in a manner that was practical and acceptable by the farmer of that time.

From 1965 to the present time things have become a lot more complicated. This applies to the work being done by researchers, and the means of communicating this research and technology to the farming community in a practical way. It has placed the Extension worker in a more difficult position during this period of time.

Farmers of today are searching every avenue for information. Where does a farmer obtain this information from today? There are many "actors in the

field". They include Agriculture Canada, PFRA, the University of Saskatchewan, and Saskatchewan Agriculture in our province. Industry must be included in this entire group. Industry is where the producer buys the final product for use on the farm, and is the group between which the last technology transfer occurs.

By looking at these "actors" we must ask ourselves the question, "How do we get our act together?" It becomes very important that all of us who are transferring technology in this entire field be all talking the same language. It is hard for a farmer to accept new ideas and new technology that may come from many different sources each with a slightly different angle. Each of the "actors" in this transfer of technology may have their own biases and opinions. This makes it difficult for a farmer to understand what he should or should not be trying. The Extension worker must take the technical information that is available, transfer it to the farmer so that a correct decision can be made.

As Extension workers we find it difficult to get this technology to the farmer and industry people in our areas. Each of these "actors" on the technology transfer scene have diverse interests.

What are the bottlenecks in the system for transferring technology to the farmgate? The researcher lacks proper funding. A quotation from Agri Week dated January 27, 1986 states, "agriculture spending is grossly inadequate and the Federal Government should increase its research spending by 50 million dollars a year over the next five years". It is often difficult for a reseacher to obtain money for research but it is harder to obtain money for the Extension component which is necessary to transfer this research technology to the farm.

The next problem is the volume of very technical research that is

available today. The Extension worker's problem is to take this great volume of very technical information and transfer this information to the farmgate. Information must be in a form that is perceived by the farmer to be useful and acceptable. We can thus see as Extension workers how important the on-farm demonstration projects have become. It is important that these projects be an on going process and regionally located.

How many actors have become involved recently with on-farm demonstration projects? They include the University of Saskatchewan, Saskatchewan Agriculture, PFRA, and industry, as well as grower and commodity groups.

It is certain that the producer would like some stream lining done in this transfer of technology right from the researcher to the farmgate. It is likely that industry would also like this research stream lined to them in a more direct manner.

The Extension worker is designated to get information to the farmer but Extension must consider becoming a little closer to industry and the researchers in order to better co-ordinate and transfer this technology.

Let us now take a look at the Extension Services of Saskatchewan

Agriculture. In northwestern Saskatchewan, according to the 1984 information

from Extension Service, Saskatchewan Agriculture, we were dealing with the

following number of active farmers per Agricultural Representative District.

District 29, Rosthern - 1,491 farms

District 30, Unity - 1,393 farms

District 33. Shellbrook - 1.751 farms

District 34, North Battleford - 1,406 farms

District 35, Lloydminster - 1,318 farms

District 36, Meadow Lake - 910 farms

District 38, Turtleford - 1,171 farms

This works out to an average of 1,348 farms per Agricultural Representative District. The Extension Branch of Saskatchewan Agriculture has seven Agricultural Representatives and five Specialists serving all these farms. You can see from this, if all of a sudden every farmer wanted all the services that we could supply it would be impossible to handle all of these requests. This means we must co-ordinate all of the ideas, activities, and research from all the "actors" involved in technology transfer if we expect this transfer to take place. Remember, it must be accepted by the farmer.

There are new means of technology transfer in the electronic age that we are facing today. Radios are in every home, every car, truck, and tractor.

Many people have VHS units in their homes. The mass media will play a greater role in the future of transferring technology to a very sparse farming population.

In northwest Saskatchewan a pilot project using the radio mass media got under way on September 1st, 1985. Here is how it took place.

The Communication Specialist and Extension staff of Saskatchewan

Agriculture in the northwest do a lot of radio work. After a discussion with

all of the staff, it was found that a lot of similar questions relating to

agriculture were asked many times, year after year.

Would it be possible to develop a public service question and answer series to answer these questions? Would our local radio station, CJNB be willing to air such a series? This would enable our Extension staff to reach some of the people who may never have used our services.

In June of 1985 the Communication Specialist proposed the idea to the Extension staff in North Battleford. After due consideration it was agreed it was worth a try and thus, this project idea was started. The next stage was to approach CJNB to see if they would carry the question and answer series as

a public service announcement. They agreed the idea could be used, however, some production costs could be incurred. We had no available money, however we proceeded, assuming like all good Extension workers, that money would be found somewhere.

The idea was then presented to Regional Director, Larry White, whose reaction was yes, but what about the extra time needed to develop the project? As a sight handicapped Extension worker, the Communication Specialist requires competent assistance in preparing some of the work. It was agreed, Diane Frolek, who works for the Communication Specialist, would be allowed some extra time to help get this project underway. It would take extra time for surveying the Ag Reps and Specialists for the commonly asked questions, getting these questions, and sorting them into the appropriate subject matter areas.

Here are the areas that were decided which would be appropriate for our Region. They include fertilizers, herbicides, horticulture, livestock, farm management, agricultural implements and buildings, farmstead planning, insect pesticides, plant disease identification, forages, cereals, oilseed, and water and sewage systems. These were sent out to five of the seven Ag Reps in northwest Saskatchewan that work with the Communication Specialist on Agritopic, on a regular basis. They include Eric Johnson, Unity; Harold Amundson, Shellbrook; Hank Nickel, North Battleford; Roland Brassard, Lloydminster; and Val Muller, Turtleford. Also included were the five Specialists in the Regional office. We all sat down and filled in the commonly asked questions in each of these areas that we had records of or that we could recall. These were requested by the first week of July, 1985.

The next stage was the mammoth job of sorting these questions within each subject matter area. There were duplications; others, where with a small word

change, could combine two questions. There were others that were debatable as to which subject matter area they should be allocated. It was decided at this time that this pilot project would run from September the 1st to the end of March, 1986. One question would be aired for each working day during this period of time.

As a former farmer the Communication Specialist felt that certain questions are foremost in a farmer's mind during different months of the year. Thus it was necessary to break all these questions from each subject area into monthly interest groups. It was quite evident that we had more questions than could possibly be answered during the period of this pilot project. The question arose as to how to select the most pertinent questions from the wide variety posed for each month's airing. Rather than having all 10 people invloved in the project make the final question selection, it was decided to leave this to the five Regional Specialists. These include, Terry Wakelin, Soils and Crops Specialist; Edgar Harder, Farmstead Engineering Specialist; Lyle Darwent, Farm Management Specialist; Bob Sparling, Livestock Specialist; and Jim Martin, Communication Specialist. Once each month, we sit down as a group of Specialists at the Regional office and select the most pertinent questions for the upcoming month. Surprisingly enough, the Specialists agree fairly concisely as to which questions should be aired each month. Using the Specialists eliminates having to bring in the Ag Reps from a distance.

Once the monthly question selections are made, the Specialists break them down into early of the month, middle of the month, or late month airings. At the same time the Specialists allocate the staff members who are responsible for answering specific questions for the month.

The next step is to type up the monthly questions, who is responsible for

answering these questions and mail them to the people involved in the project.

Once the answers to the monthly questions are prepared, the staff comes to the office of the Communication Specialist in North Battleford to record the master tape. This must be done the month previous to the month being aired. Once the master tape is ready, CJNB duplicates it on a radio quality reel to reel. The idea has spread as a result of a meeting which was arranged by Roland Brassard, Ag Rep, Lloydminster. CKSA Lloydminster liked the idea and asked if they could have a duplicate copy of the reel to reel starting November 1, 1985 on a trial basis. They liked the series and are currently carrying it along with CJNB North Battleford and CJNS Meadow Lake.

Good Extension ideas can come from many sources. Extension workers are couriers of technological information. We must be observant, we must know where the research and demonstration activities are taking place, and we must listen to the people in our farming community for they are the ones requesting technical information. The mass media is gradually playing a more important role in this technology transfer. A survey will be conducted in early March 1986 to assess the farming community's reaction to this project. It has been an interesting project but requires a high degree of co-ordination and co-operation of the entire staff.

This is but one means of technology transfer. There are many means of technology transfer in place today and more ways of transferring this technology will develop in the future. However, those involved in technology transfer must put this information in a form that is understandable by the final recipient, the farmer.