

A short history of IAMFE and Oyjord plot seeders

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In 1958 I made a seven week study tour to five European countries. During this tour I conceived the idea that the European countries should cooperate in establishing a European Institute on Mechanization of Field Experiments.

Upon my return I started my work for promoting this idea. My hope was that FAO should be responsible for this work, but FAO informed me that they could not do this.

I tried to get OECD interested to support my ideas, but was not successful, so I turned my hope to W.K. Kellogg Foundation headquartered in Battle Creek, Michigan, USA. This foundation granted funds for the establishment of new important institutions. W.K.Kellogg Foundation also granted fellowships to young scientists for graduate studies at universities in the USA.

In order to be in a good position for a presentation of my ideas, I secured a Fellowship from W.K. Kellogg Foundation for studying agricultural engineering at Michigan State University, East Lansing. During my stay in Michigan from 1960 to 1962, I tried to get W. K. Kellogg Foundation to support my plan for establishing a European Institute on Mechanization of Field Experiments. The advice I got from the Foundation was: "Work further on your ideas when you are back in Norway".

Upon my return to Norway in 1962 I decided to test my ideas and started my work for organizing a "European Conference on Mechanization of Field Experiments". Even with a great interest in Norway and Europe, we received less than US \$ 2000 from our Department of Agriculture for a European conference we planned to take place in Norway in 1964.

With a preliminary program and a list of possible participants, I worked out an application to the NATO Division of Scientific Affairs in Paris for financial support of the planned Conference. I was extremely pleased when I received a grant of US \$ 15,500 for arranging a "NATO Advanced Study Institute on Mechanization of Field Experiments."

This Study Institute on Mechanization of Field Experiments was arranged from June 15-27, 1964, at the Norwegian Institute of Agricultural Engineering.

At this conference I proposed to establish a European Institute on Mechanization of Field Experiments. I also proposed that an International Association on Mechanization of Field Experiments (IAMFE) should be established.

On June 19, 1964, a majority of participants from 17 countries voted to establish "The International Association on Mechanization of Field Experiments (IAMFE)"

The NATO Study Institute was later named: "First International Conference on Mechanization of Field Experiments" The short name is: "IAMFE/NORWAY'64".

Later on, 13 International and 7 Regional IAMFE Conferences and Exhibitions have been arranged. See www.iamfe.org

It should be mentioned that IAMFE has not received any financial support from NATO since 1964.

I regret to report the sad fact that IAMFE, in spite of many good words, never received any financial support from the Agricultural Research Council of Norway, Ford Foundation, W.K. Kellogg Foundation, Rockefeller Foundation, UNDP, The World Bank and The Consultative Group on International Agricultural Research (CGIAR).

The first time IAMFE received financial support in addition to the ordinary individual and national membership fees, was from the Research Council of Norway which granted N.Kr 60.000 (approx. US \$ 10.000) for our IAMFE/CHINA Project 1995-1997. It came 31 years after IAMFE was started. This grant was very important and had a great impact in China.

IAMFE had to survive from the small incomes from individuals, groups and national members. In 1964-65 (2 first years) we had no income. In 1966-67 (2 years) our total income was not more than US \$ 1 530. In 1968-71 (4 years) our income was US \$ 19 713. Our income increased to US \$ 78 750 for the 4- year period 1988-91. For the 4 -year period 2000-2003, our membership income had dropped to US \$ 19 280. For the 4 year period 2004-2007 it was US \$ 15 060.

Non paid- voluntary work from the believers in IAMFE has been of essential importance for the survival of IAMFE. The establishment of the proposed Internet Agricultural University (IAU) in the period 2000-2004 was a mistake and did not solve the financial problems of IAMFE. The Executive Committee decided to dissolve IAU during 2009. Since then all efforts have been made through the operation of IAMFE.

A short history of the Oyjord plot seeders/drills.

The development of the Oyjord plot seeders started in Norway in 1957.

The first Oyjord plot seeder for mounting on the Agria 1700 two-wheeled garden tractor came into ordinary use in the spring of 1958 at the Vollebakk research farm belonging to Department of farm crops, Agricultural University of Norway, which in 2005 changed its name to the Norwegian University of Life Sciences.

After two years of improvements and testing, the first series of twenty 10- rows Oyjord plot seeders and five 4-rows Oyjord plot seeders were delivered from Jens A. Schou Mek. Verksted, Drøbak, Norway, in the spring of 1961. This workshop/factory was the first in the world for production of multirows, one variety batch type plot seeders.

In 1962 I gave a colleague of mine, Dr. Martin Lein, Institut fur Landmaschinenforshung , Braunschweig, West-Germany , the right to make copies of my seeder for front mounting on the Agria 1700 garden tractor. Approximately 80 of these seeders were made in Germany.

In order to give the agronomists and plant breeders the freedom to choose the number of furrow openers and row distances they wanted, I invented the Oyjord interchangeable distributor heads in all sizes from 2 to 10 outlets and in addition 12, 14 and 16 outlets. I reported this invention in the Annual Report 1965 from the Norwegian Institute of Agricultural Engineering.

To complete the freedom to choose sizes of the seeders, I designed and delivered from Jens A. Schou Mek Verksted, Norway, self-propelled and tractor-mounted plot seeders with any desired track width adjustable between 120 and 160 cm. I also delivered self-propelled and tractor-mounted plot seeders with any track width adjustable between 160 and 210 cm.

To give agronomists and plant breeders the possibility to change the Oyjord batch type plot seeders into ordinary bulk drills for continuous drilling, I invented the Oyjord large volume feeder and the Oyjord vertically fluted feeder. This change takes less than five minutes. These inventions are reported in the Annual Report 1965 from the Norwegian Institute of Agricultural Engineering.

The Oyjord plot seeders became a success and from 1961 to 1976 they were exported from Norway to 57 countries all over the world. Countries as far away from Norway as Australia, New Zealand, Tasmania and India were on the list of customers. See www.iamfe.org and read quotations of letters from the users of Oyjord plot seeders under Info.

In 1967, the Soviet Union purchased 20 Oyjord self-propelled plot seeders from Jens A. Schou Mek. Verksted. In year 2000 it was reported that the Soviet Union had made 600 tractor mounted plot seeders with the Oyjord working principle.

In 1974 I transferred the production rights of the Oyjord self-propelled plot seeder to the Austrian company Walter & Wintersteiger, which later changed name to Wintersteiger. Hereafter, I prefer to use Wintersteiger in this article. My contract with Wintersteiger resulted also in the Plotman tool-carrier with Oyjord plot seeder. Wintersteiger makes the Oyjord cell wheel cone feeder with my name, but I regret very much that my name is not used on my most important invention- the Oyjord interchangeable distributor heads, which I invented and published in Norway in 1965.

I also gave Hans-Ulrich Hege, Waldenburg, Wurttemberg, Germany production rights. At IAMFE/NETHERLANDS '80, Hege demonstrated a front mounted and a rear mounted Oyjord plot seeder on his tool-carrier. Because of the competition between Hege and Wintersteiger, the arrangement with the purchase of the Oyjord feeders and seed distributors from Wintersteiger did not function so Hege had to make his own system in his plot seeders.

In 1976 I gave Wintersteiger the production rights to make the Oyjord tractor mounted plot seeders. In 1976 before I ended my production in Norway, I shipped a total of 21 Oyjord tractor-mounted plot seeders from Jens A. Schou to 21 countries in Africa and in the Middle East.

The main reason for transferring the production rights of the Oyjord plot seeders to Wintersteiger and other manufacturers, was that I felt that it was more important for me to save IAMFE than to continue as a manufacturer in Norway.

In 1976 I gave the Love Company, Garfield, Washington, USA, the rights to make the Oyjord tractor mounted plot seeders for forest nurseries. This seeder was named Love/Oyjord seeder. It became very successful in forest nurseries. A 15 minute DVD plate with presentation of this seeder is available. Please write Oyjord on Google and click.

Another spin-off effect of the Oyjord plot seeder is the Oyjord vegetable seeder with control feeder which I developed about 40 years ago. I produced about 50-60 of this seeder in Norway, but this seeder is not in production, but it is still much used in carrots and onions production in Norway.

My decision to give Wintersteiger, Hege and Love Company a legal right to copy my inventions and developments without competition from the Oyjord Research Laboratory and the Schou workshop, gave me more time and a greater opportunity to invite students and scientists from

developing countries to Norway. By the royalties I received, it also gave me a better financial basis for travels and for further development of IAMFE.

Oyjord plot seeders in China

In 1980 Beijing Agricultural University purchased an Oyjord self-propelled plot seeder from the Wintersteiger factory in Austria. Later, several Oyjord plot seeders were purchased to China.

In 1983, 30 years ago, I was invited by the Chinese Ministry of Agriculture to lecture at a one week seminar on mechanization of field experiments at Beijing Agricultural University. Since then, I have I have considered China as the most important country in the world.

In 1993 approx. 90 units of a Chinese models of the Oyjord self-propelled Oyjord tractor mounted plot seeders were made in Hongxinglong Research Institute in Heilongjiang province, North-East in China.

In 1994 Chinese models of the Oyjord plot seeders were exhibited and demonstrated at the Ninth International IAMFE/CHINA '94 Conference and Exhibition arranged at Beijing Agricultural Engineering University. Later on, this University changed its name to China Agricultural University (CAU). The Chinese Branch of IAMFE was founded in 1994.

In three years, from January 1st 1995 to December 31st 1997 I was administrator of an IAMFE/CHINA project named: "Co-operative Research and Design of Machinery for Field Experiment Plot Planter and Plot Harvester." As mentioned before this project was financed by a grant from The Research Council of Norway.

December 12, 1996, I sent a model of an Oyjord tractor mounted plot seeder as a private gift to China. It was addressed to the Xinxiang First Tractor Factory which should adapt and produce it for Chinese conditions. The seeder arrived at the factory in July 1997. It was tested in September 1997. I have a report stating that the design of the Oyjord Plot Drill is perfect and that upon a meeting, the seeder will become an authorized product of China. Because of unhappy circumstances at the factory, the project was not carried through as planned.

The seeder I sent from Norway to China in 1996 was very simple. It had a fixed track width of 150 cm c/c. This is the most common track width for plot seeders. This corresponds with a standardized cutting width of 150 cm for plot combines for variety trials in cereals. Within a distance of 120 cm between the outer coulters, you can choose the number of rows you may wish up to 12.

From 1996 to 1999 several Chinese students and Chinese professors were granted IAMFE fellowships for studies of the Oyjord plot seeders and other plot research equipment in Norway. The last one was Professor Shang Shuqi who was elected IAMFE President at IAMFE/DENMARK 2008 Conference and Exhibition.

Professor Shang Shuqi was re-elected as President of IAMFE at the 14th International IAMFE Conference and Exhibition, IAMFE/CHINA 2012 arranged at Qingdao Agricultural University (QAU). The International IAMFE Centre was moved from St.Petersburg to QAU. www.iamfe.org /News.

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