

tion to respond to anticipated market demand for the 1990's. Planting decisions are a calculated risk for each farmer every new growing season because the system of remuneration operated by the Canadian Wheat Board makes a direct link between producer prices and world market prices. In today's soft world grain markets, a decision to invest in new equipment or land only comes after the most careful calculations.

Major customers for Canadian grain exports now include the European Economic Community (especially the U.K. and Italy), the USSR, China and Japan. As a group, many developing and newly industrialized countries purchase increasing amounts of Canadian grains to keep up with the demands of their rapidly growing populations. Canadian food aid shipments as well as the transfer of grains production know-how are making an important contribution to the food security of many countries of the Third World.

A NEW BOOST FOR FUSION RESEARCH

A co-ordinated national programme of fusion research and development is being established by the National Research Council (NRC) of Canada and its partners at provincial level. The long-term objective of the programme, which will have a \$ 20 million budget by 1985, is to enable Canadian companies to manufacture sub-systems and components of fusion power reactors. There will be four principal thrusts to this programme, including specialization in three separate sectors of fusion research.

In the area of magnetic confinement technology, the research efforts will be directed towards a Tokamak reactor (named after a Russian invention in plasma stability) with the unique capability of quasi-steady state operation. The \$ 37.4 million cost of this project is being shared equally by Hydro Quebec and the NRC. The Tokamak is currently being constructed at Varennes, Quebec, and is expected to be operational by 1984.

In the materials and engineering areas, Canadian efforts will be focused on a fusion fuels technology project. This five-year, \$ 20.6 million project will carry out research and development on the extraction and management of tritium, a key component of fusion fuel. The Government of Ontario and the NRC are building a plant to extract tritium from Ontario Hydro's heavy water CANDU reactors. This plant will be the world's largest non-military source of tritium by 1990.

A laser fusion project, on high power, gas laser technology and diagnostic instrumentation, will be the area of specialization in the inertial confinement technology area.

The fourth thrust of the programme involves various international collaborative arrangements. Any one country would find the cost of developing a fusion energy system high, so fusion research has progressed with international cooperation, enabling the sharing of technological breakthroughs. To date, Canada has participated in co-ordinated fusion research through the International Atomic Energy Agency and the International Fusion Research Council. As a complement to this multilateral cooperation, Canada and the EC have discussed the possibilities of pursuing bilateral fusion research projects of mutual interest in the context of the Framework Agreement on Commercial and Economic Cooperation. The programme