## making it and eating it

and in Edmonton

The last main area of focus for the Commission be Edmonton with hearings going on through March and April.

"In Edmonton we expect to hear more from insumers, especially low-income earners, the elderly, ngle parents and we are arranging hearings with any local community groups.

Buy why hearings at the university?

'Well, first of all, students are a low-income group nd they often have to borrow money to live. We spect particular problems for married students and ple parents. The student community shares oblems with everyone else in a low-income situation. here is also the question of institutional food, its uality, appeal and cost. Students are consumers as ell." Olynyk said.

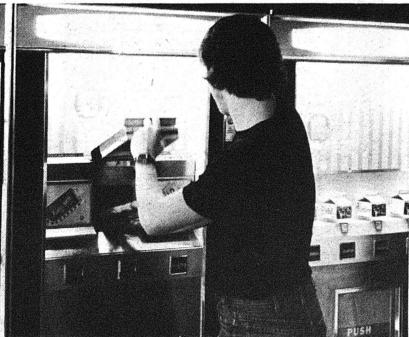
But there is another aspect to the university. It ould serve as a source of basic work in documenting d analysing the problems that are expressed both by members and by the larger community. We hope to g some breaking down of the isolation between the niversity and the city by making contacts between udents, academics and people from community oups. Once the hearings in Edmonton are over we bring those who have participated together to scuss what has happened and what needs to be done keep the process going.

Hearings for the Food Commission are cheduled to end in late April. Then the task of ifting the volume of material written and ecorded will begin in earnest. A final report is to e prepared by the end of the year.

Those who wish to express their food woblems, find out about the problems of others nd those interested in seeing the commission process at work are invited to attend the Iniversity hearing which will run from 12:30 pm mward through the afternoon Thursday, March n in the Meditation Room, 158A SUB.

feature by John Devlin







## Green Revolution no end to hunge had imported wheat to meet its needs,

suddenly became an exportor of wheat in 1967. (1) Miracle rice (IR-8), doubled yields in the Philippines. (2) Why then, are fewer acres planted with these new varieties today?

Though the new plants mature rapidly which allows for multiple cropping, this also quickly depletes the soil nutrients, creating the need for artificial fertilizer. The plants often ripen too quickly - before the monsoons have finished when harvesting is impossible. In some countries, grain has traditionally been dried on the roadside; again, impossible during monsoons ar d this situation has created the need for mechanical dryers.

The traditional varieties had evolved through natural selection and though not as responsive to prime nutrient and moisture conditions as are the new varieties, plants can still survive in suboptimal conditions. The miracle grains have a narrower tolerance range and require specific amounts of water and fertilizer to achieve the promised maximum yield. The additional expense of irrigation and fertilizer is usually beyond the reach of the farmer engaged in subsistence agriculture.

The new varieties require four to five times the amount of fertilizer that traditional varieties require. In the 1960's, when the seeds were being promoted, fossil fuels were still a cheap

source of energy and fertilizer. Now increased cost due to the energy crisis has struck hardest those who cannot afford it. Canadians love lawn-mowing too much to reduce fertilizer consumption when prices rise, however, to farmers in some Third World countries, one additional bag of fertilizer can be a very large expenditure.

Those farmers who already have a bit of capital, or who can afford to take risk, are the ones who can plant the new varieties. Land suitable to growing the new varieties has risen in price and is available to those who can afford it.

With suitable location, good weather conditions (flooding can be disasterous to dwarf varieties), proper irrigation, fertilizer and some mechanization, the new varieties can produce attractive yields — attractive to insects. Varieties bred with disease resistance in one area, may be totally susceptible to local disease once translocated. Pesticide residues have been fatal to fish populations which are often raised as a protein source in paddy fields. The required fertilizer and pesticide would create, for most third world countries, dependence on a nonrenewable resource, yet another type of dependence on foreign resources.

With multiple cropping, harvesting needs to be done quickly so that soil can be prepared for the next crop. Those farmers who could afford to, have mechanized, which has left many landlabourers unemployed.

Much of the marketing in Third World countries is done directly between each farmer and a town merchant. Such a marketing system cannot easily handle large fluctuations in supply. Grain is at times damaged because of lack of storage and because inadequate transportation systems cannot move grain to where it is needed.

For those who sought a prepackaged solution to world hunger problems, the Green Revolution was a failure. What it has done, however, is given mankind another tool with which to work. Science must work in unison with other disciplines; a one-sided approach cannot solve a multi-faceted problem.

1. Cannon, G. 1967. On the eve of abundance. Farm Q.(3): 64-65 2. Brown, L.R. 1970. Seeds of change. Praeger Publishers, New York.

## Jeanette Trambel

The problem of world hunger has en tackled from different one-sided proaches which have altered, masked, missed the problem but never minated it. One such approach has en the Green Revolution.

During the 1960's, plant breeders in exico discovered new varieties of rains that were capable of doubling op yields. The seeds spread to other and World countries and with them ossomed the hope that world hunger ould at last be conquered.

Confidence in the "miracle grains" as due, in part, to the fact that these orter varieties can better withstand and heavy rainfall. In addition, lese dwarf varieties mature more pidly, enabling crop rotations around calendar. Supply of grain is erefore, more continuous throughout year, circumventing the common oblem of surplus at harvest and ortages during other seasons.

Yields did increase. Mexico, which