

'Green revolution' multiplies Bophuthatswana maize yields

By ROBIN HALLETT, who was recently lecturing at the University of Bophuthatswana

I HAVE always relished that aphorism of old Dean Swift, the great 18th-century satirist, that the greatest benefactor of mankind is the man who can make two blades of grass grow where one blade grew before. Recently in Bophuthatswana I had the opportunity of meeting some such benefactors. But it was maize, not grass, that they were growing, and the yield had increased not twice but sevenfold. Basically what had happened was that the "green revolution" had been brought at long last to an African farming area.

The "green revolution" is nothing new in the world of agriculture. Its origins date back 30 years and more to a time when American agronomists began producing new, higher-yielding, faster-growing strains of maize and other grain crops. The new strains require elaborate attention, involving the application of the proper chemical fertilizers and pesticides. Introduced into India in the 1960s the new strains brought about profound changes in the agriculture of the sub-continent. White farmers in South Africa were quick to make use of the new methods.

Too poor

But a revolution of this nature requires a combination of capital — money to pay for expensive seeds, fertilizers and pesticides — and technological knowledge. Most black South African farmers were far too poor and ill-instructed to be able to apply the new methods. Now in Bophuthatswana a way has been found to bring the "green revolution" to a section of the black peasantry.

The innovating force behind Bophuthatswana's "green revolution" is Agricor, the Agricultural Development Corporation of Bophuthatswana. Agricor is a para-statal organization, funded entirely by the government of Bophuthatswana on a non-profit-making basis and staffed largely in its higher reaches by white South Africans. Its aim is simply defined: "To develop the agricultural potential of Bophuthatswana". It is not intended to replace the old-established Department of

Agriculture, but to supplement the department's activities and to inject a new mood of dynamism.

Projects, training, agency services, loans and marketing are the five headings which Agricor uses to define its functions. Projects have to be identified — an irrigation scheme here, a maize improvement scheme there, the construction of silos in a third place; then plans have to be drawn up, consultants brought in, managers recruited to help in the initial stages. Every project involves the training of local personnel to take over positions of increasing responsibility. Agency services includes administrative and financial services for already-established co-operatives. Loans are made available to co-operatives and to individual farmers, and the corporation's marketing services put at the disposal of the producers of livestock, fruit and vegetables.

Described in such formal, abstract terms, development policies cannot avoid sounding dull. Development becomes exciting only when you can see it on the ground and talk to some of the people directly involved. Through the kindness of Agricor's charming and immensely well-informed public relations officer, Mrs Dawn Mokhobo, I was given the opportunity of visiting some of the corporation's projects in Ditsobotla District south of Mafikeng.

Yields achieved

Ditsobotla adjoins one of the great maize-growing areas of South Africa. In recent years white farmers have achieved a yield of 3½-4 tonnes a hectare; black farmers using traditional methods of cultivation have produced no more than half a tonne a hectare. The problem put at its simplest was to get black farmers to achieve the same yield as their white neighbours. (National boundaries, it should be noted, are conspicuous by their absence. Driving along a road, I would be told: "That side's South Africa, this side's Bophuthatswana." Clearly you need to have a very acute knowledge of local geography to know just which country you are in.)

The organizational method used to improve African production is through a form of co-operative first worked out in Israel and known there as the Moshave system. I was given some indication of what such a co-operative could achieve when I visited Sheila, which Agricor regards as its "model project". The Sheila scheme embraces 3 700 ha of arable land. There are 197 farmers on the scheme. Collectively they form a primary co-operative; they all come together in a general meeting once a year to elect a management committee, whose task it is to liaise with the management agent. The farmers are subdivided into 31 "contracting units". Each unit is made up of six or seven farmers and one contractor; individual farmers possess 15 ha plots, the contractor 30 ha. The contractor acquires, through a hire-purchase agreement with the management, a tractor and other implements necessary for cultivating his own land and that of the other farmers in his unit. He is paid for the use of his tractor by the other farmers. This income, together with the proceeds of his additional 15 ha, make it possible for him to keep up with the payments on his hire-purchase agreement.

Good management is clearly essential for the success of such a project. The managerial staff, a small group of white agronomists

and technicians, has been seconded from a neighbouring white farmers' co-operative, the North Western Co-operative of Lichtenberg. The task of the managerial staff is to provide professional advice and technical assistance, train local farmers in the new methods and set up the project's administrative and financial infrastructure. Agricor now provides the credit needed for the purchase of seeds, fertilizers, fuel, tractors and other equipment.

To be driven round the edge of the project was to see with one's own eyes the change that has taken place. On one side, beyond the fence, lay the fields of farmers not involved in the project, most of them smothered in weeds, the maize skimpy or stunted. On the other side of the track, within the project, the crop looked uniformly strong and healthy, though some plots were obviously better tended than others.

The Sheila project's statistics tell an impressive story. In 1977 the scheme produced six million kg of maize, average yield was 1.68 tonnes a hectare and the net income for the farmers after all costs had been paid R20 a hectare. Three years later the average yield had risen to 3½ tonnes a hectare, total production stood at 13 million kg and the average net income had increased to R175 a hectare.