

## STATUS REPORT HORTICULTURE

december 85

Ebbe N.

To Farm Committee.

The Horticulture Department is divided into 4 sections: Orchard, Vegetable, Landscaping and the recently formed Conservation sections.

ORCHARD:

So far we are running 16 small orchards of altogether 6,5 ha, only 2 of them exceeding 1 ha. Major species are:

	no.	no. mature	yield jan-sept 85	expected minimum Yearly
Citrus sp.	1260	290	19 t	24 t
Banana	1100	460	0,5 t	4 t
Guava	340	100	0,1 t	5 t
Papaya	2000	480	5 t	8 t

There are numerous uncertainties in quoted actual yield and expected yield, but still it can be concluded, that output is not satisfactory. The utmost reason for this is lack of irrigation. In our area the annual rain deficit for the species is roughly 350 mm for citrus, 800 mm for banana, 600 mm for papaya and 700 mm for guava. Lack of irrigation affects general health of plants, but even more the fruit-setting. Furthermore, especially the citrus and bananas suffer from the high wind pressure, wherefore windbreaks are being planted now. In the old citrus orchard (named "Pioneer"), we experience a range of very serious pest and diseases, the worst being a root-fungus (gummosis). A combination of unfortunate factors causes this, including variety of rootstock, budding and transplanting methods used. Also the younger citrus-orchards have been set up similarly, so that that very same disease can be foreseen to affect them within some years. There's hardly any cure for gummosis, which has spread within TZ in the last few years. The only answer to this is to obtain better rootstock varieties from abroad and to improve techniques. Hard-to-kill ants are another problem, spreading aphids and scales, which in turn are vectors of virus and fungus.

PROPOSAL for orchard-extensions, assuming 2000 people to be fed:

	estimated need/person	ha needed	no. plants
citrus	100 g/day	6	1500
banana	100 g/day	7	9300
pineapple	1/week	5	210000 pr. 2 yaers
avocado	400 g/week	10	2800



Papaya will be planted as intercropping, and residents are by now encouraged to plant out new generations from our nursery.

Pineapple might also serve as intercropping.

In the nursery we do by now have the sufficient number of budded citrus-seedlings, more than old enough to be transplanted. Viability, and even more future fruitsetting is already somehow doubtful, and if irrigated fields is not set up within very few months, the stock should rather be abandoned/sold.

#### VEGETABLES:

Area cultivated is about 2 ha sprinkler-irrigated. Yields are fluctuating a great deal for most species, with many factors influencing, but when nothing goes too wrong, is absolutely up to expected standards.

January through September 1985 yielded: Legumes 0,9 t, Leaf 10,8 t, Root 4,2 t, cucurbits 13,4 t.

One major factor at the end of dry seasons is lack of (pure) water, leaving sprinklers without sufficient pressure and seedlings with water of phytotoxic salinity. Other factors are low and even decreasing pH, with lime hardly available. And a low K-content, which though will be improved as manure available from farm increases.

A very good sortiment of seeds has been selected through the years, but still many pests and diseases are unavoidable under this "marginal" conditions in low, dry tropics. To avoid further building up of these, it has been planned and approved to move the vegetable garden into one of the farm fields, to be included into 2 years crop-rotations, at the same time extending to 6 ha, which should meet consumption needs.

A serious problem concerning vegetables is the distribution system, implicating high waste rates. It has been suggested, and approved by Directorate, that a new system be implemented and a new shop built, on the principles of free choice of any "customer" to fetch whatever vegetables wanted within opening hours, and in any needed amount, thus avoiding waste by piling up in the baskets of vegetables, some even unwanted for the individual, for half a week's use. And, on the other hand, to make a greater variety available to those with greater cooking knowledge.

#### LANDSCAPING:

In our nursery, propagation of species needed in big scale, i.e. especially hedges, is being systematized, whereas some supplementary species are still being bought/exchanged outside.

A list of priority for delivery of plants has been confirmed by the Environment Subcommittee as follows: School, PU's, Common areas, private residences. Also, the subcommittee has approved the suggestion, that planni



ning and establishing of the different School and PU areas is to involve Landscaping section according to mutual agreement, whilst maintainance is fully schools/PU's responsibility. This leads to the Subcommittee's support to the suggestion, that unite themselves employegroundmen to take care of the day-to-day work at the following areas otherwise deemed to neglectance: Cemetery, school, primary school, clinic and technical office. As to which extend groundsman can be shared, experience will tell. At cemetery, it has been established that the groundsman should be an ANC.

CONSERVATION:

The task of this is soil- and water conservation in all areas of Mazimbu exposed to erosion and wind damage. Trees will mainly be propagated in our nursery and delivered by Aforestation Authorities, and planted out as wind- and waterbreaks.