

New Coffee Varieties

There are many different kinds (races) of coffee rust, and no one type of coffee is resistant to all the coffee rust races. It is desirable to have growing in the Territory many different types of coffee with resistance to difference races of rust. So back in 1961 the Department started to import seed of various types of rust-resistant coffee. These varieties have since been grown to obtain sufficient seed for agronomic trials. These trials will study such characteristics as yield and adaptability to soil, climate and management techniques.

It is not known, of course, what race will be present if an outbreak of coffee rust does occur here at some future date, but these importations mean that some material resistant to that race may be available, unless a completely new rust race occurs.

The first agronomic trial was started in 1968, using a total of 17 different varieties. These varieties originated from India, Tanzania and Ethiopia, but were obtained from the United States Department of Agriculture or from Portugal, which is one of the foremost countries in research on coffee rust. Four dwarf varieties of considerable commercial

interest obtained from U.S.A. were also included in the trial, and several varieties established already in the Territory were added for comparison.

All varieties are being fertilized on a "little and often" basis of 2 oz of complete fertilizer each 2 months until they are well established in bearing.

Two pruning systems have been applied to all the varieties:—

- (a) Agobiada pruning with four leaders;
- (b) Growth as unpruned single stem bushes for a number of years, then conversion to multiple stem by stumping.



Plate I.—Caturra Dwarf variety showing heavy bearing

Temporary shade was initially provided by *Crotalaria*, but was removed after 18 months and the trial is now unshaded.

It is too early yet to have any reliable information on yields.

The performance of the dwarf varieties will be followed with particular interest. There are three varieties, Caturra (red fruit), Caturra Amarello (yellow fruit) and Mundo Novo (yellow fruit). Information from overseas indicates that they will all be high-yielding at close spacing. As the bushes are still growing, it is difficult to decide yet just how "dwarf" they are going to be, but one difference between these varieties and conventional varieties is already quite apparent. The primary and secondary lateral branches grow much

closer together, so that the whole bush is quite compact. Those that have started bearing are bearing heavily (see photo).

Some of these varieties are also being tested at Goroka and Korn Farm (near Mount Hagen).

A further seven varieties with resistance to some rust races were obtained from the same sources. These varieties originated in Kenya, Tanzania, Ethiopia and India. They arrived too late for the first trial, so they will be included in a second trial now being established at Aiyura, with Arusha and Bourbon standards for comparison.

Results of these agronomic trials will be reported as soon as possible.

Invitation to Authors

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Photographs and diagrams should be included where applicable. Black and white photographs should be 6 in. x 8 in. in size, with a glossy finish. Negatives will be accepted if prints cannot be obtained. If black and white photos are not available, coloured slides may be submitted to see if black and white prints can be made from them.

The level of language used should be standard English with a minimum of technical terms. Technical words may be used, but should be explained the first time they are mentioned.

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