micro-organism we were able to observe intracellular orientation of subcellular particles. This led us to believe that this force might be used as a powerful and controlled mutagenic agent. Growing garlic root-tips in water were placed in a field between two insulated electrodes. No temperature increase in the water was noted. The tips were exposed for a 5-min. period and examined 24 hr. later.

Among those aberrations seen were linear shortening of chromosomes, pseudochiasmata, amitotic division, bridging, irregularities in the chromosomal envelope. The effects noted mimicked those produced by ionizing radiation and *c*-mitotic substances.

Fig. 1 shows some of the chromosomal aberrations observed. It is believed that this represents a new tool which may induce chromosomal aberrations to a degree contingent upon frequency, pulse, power, exposure time, and the axis of the cell *vis-à-vis* the field. Further experiments on the physical basis of these changes, as well as chromosome and mutation studies on other materials, are at present under investigation.

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Preliminary Information on the Genetics of Ethiopian Coffees

Little is known about the genetic variability of the species *Coffea arabica* in its native home—south-west Ethiopia. Recently, however, seed samples of wild, cultivated and subspontaneous coffees in this region have been gathered by various agriculturists[1,2]. Several small seedling populations from Ethiopia were sent here in 1952 and 1953, and the genetic constitution of some of them is now being worked out.

It was noted that the 'Erithrean moca' coffee (*PI* 205 413, U.S. Dept. Agric.) is identical with the *semperflorens* mutant, being homozygous for the alleles *sfsf*[1].

The results of artificial pollination with the *murta* variety (*ttNana*) revealed that from 33 analysed coffee plants from Ethiopia, 23 carry the alleles *tt*, probably in the homozygous condition. The alleles *tt* characterize the variety *bourbon*, and its presence in Ethiopia indicates that this region and not Reunion Island, as formerly thought, is the place of origin of this important commercial variety. The *typica* variety (*TTNaNa*) also occurs in Ethiopia.

Plants of the *abyssinica* variety were frequently found in some of the seedling populations. Although the alleles responsible for its main characters are not yet known, it was noted that *abyssinica* plants carry the alleles *TT*. Other populations segregating for *abyssinica* characteristics bear the alleles *tt*. The coffee type *Ennarea* or *Ennaria*[1] does not seem to belong to this variety.

The genetic analysis of the colour of the young leaves revealed that the allele *br* is frequently found in the imported plants. A new recessive allele, *semierecta* (*se*) with a phenotypic effect somewhat similar to the dominant allele *erecta* (*Er*), was observed[3]. Plants with large fruits and seeds, *macrocarpa*, were noted but no information is available with regard to their genetic constitution.

Coffee seedlings with a small foliaceous and persistent calyx were found in the populations of plants identified as *S.4-Agaro* (*PI* 205 408) and *S.6-Cioccie* (*PI* 205 411) coffee. In spite of having developed sepals, these plants do not carry the allele *sd*[4]. An interaction, however, seems to occur between the *sd* and the allele or alleles responsible for persistent sepals from Ethiopia.

Other variations concerning: leaf shape; their position on the lateral branches; fruit shape; colour of the berry; period of fruit ripening and vegetative vigour, were also found.

This rather intensive variability encountered in the seedlings received from Ethiopia may be the result of a non-randomized procedure of seed collection, seeds very often having intentionally been harvested from more or less conspicuous variants, occurring in the Ethiopian coffee forests. Possibly a higher amount of natural cross-pollination, occurring in the native habitat of *C. arabica*, may also be responsible for this marked genetic heterogeneity.

The occurrence of several new genetic factors in such a small sample of Ethiopian coffee indicates that further exploration for coffee mutants in Brazil is highly desirable, to throw more light on the genetics of *Coffea arabica* and also to provide more basic material for its improvement.

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BIOLOGY

Generic Nomenclature of the Intermediate Hosts of *Schistosoma mansoni*

It has been shown by Hubendick[1] that the molluscan intermediate hosts of *Schistosoma mansoni* in Africa and South America are congeneric. The selection of the correct name for this genus of planorbid snails cannot be decided by a simple application of the rule of priority, because there is a conflict of opinion as to which is the oldest available name. The situation is further complicated by the fact that the names competing for precedence under the rule of priority are all quite unknown to the medical field workers and parasitologists who are frequently concerned in studies on these snails. An application has therefore been made to the International Commission on Zoological Nomenclature by Drs. F. S. Barbosa, B. Hubendick, E. A. Malek and myself asking for a decision which will stabilize the nomenclature of this economically most important group. It is probable that the decision of the Commission will not be made known for some time. It is for this reason that I am anxious to direct the

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