

I Introduction

The importance of organic matter in the maintenance of soil fertility has been recognized the world over. In Western agriculture, the injudicious use of large amounts of artificial fertilizers in recent years with no organic balance, has resulted in excessive exploitation of the soil reserve. Although the place of humus in the soil economy was forgotten in some areas for a considerable period of time, the marked decline in yields and its deleterious effects on soil structure as a whole, soon made themselves apparent in many places in the world. Often the damage caused has been too serious to rectify, and agriculturists now tend towards the view that the safest way to use artificial fertilizers is in conjunction with organic matter in some form or other. Some scientists have taken very extreme views in this respect, and many, such as Sir A. Howard, even advocate the use of organic manures alone, believing all artificials to injure the soil, even when used intelligently. Extravagant claims have also been put forward regarding the effects of organic manures on the nutritive value of crops and their resistance to pests and diseases. In many cases evidence supports this, but usually the effects of organic manures are not so evident, though very important to the well-being of the plant.

The methods of supplying organic matter to the soil will vary with local conditions, and is usually decided by the suitability of the area to livestock, to crops, or perhaps to both.

Composting has been carried out by the Chinese for generations, but this method of utilizing crop waste is comparatively new to Western agriculture, and its use in the Tropics is even more recent. The intensification of farming

systems with a resultant yield and crop waste increase, increased specilization and mechanization with livestock reduction can be given as some reason for the adoption of composting in many areas.

The first part of this report summarizes the general principles of composting, the second part covers the actual experimental work carried out, while the last section deals with the economics of the process in relation to costs etc. The various possible methods are considered separately and their advantages and disadvantages discussed.