

## MONTHLY NEWS LETTER

NOVEMBER 1956. Several years ago Louis Bromfield visited our school.. He had planned to stay a day or two, but he found some problems here so he remained for a week. A very interesting week. He talked about the damage which can be done to soils by turning them over too deeply, and he talked about mulching. He helped us start a few experiments.

Now we have a publication from the IBEC Research Institute of New York, their No. 12. It is entitled "Preliminary Study of Mulching Young Coffee in Brazil", and it is written by J. C. Medcalf. We do not believe IBEC will object to our quoting the following paragraph, for we are all interested in the development of tropical agriculture, and what one accomplishes helps the others. Dr. Medcalf says: "Among the direct benefits from mulching is an increase in available soil moisture, a lowering of soil temperature, and an improvement in the chemical composition and physical condition of the soil. Erosion control and soil conservation would be among the major indirect benefits from a mulch system."

We are greatly increasing the use of mulching in connection with our nursery work, our orchards, and especially with the promising system of coffee cultivation without overhead shade. All of which goes to emphasize the fascinating possibilities which still lie ahead of us in tropical American agriculture.

Our rice crop has been harvested; approximately 1500 lbs per acre, upland rice, principally of the variety Nira this year. Our experience of past years indicates that it is risky business growing rice in the Central American highlands if you are not prepared to irrigate two or three times during the veranillo or short dry season which hits us in late July and August. If the plants suffer from drought the heads simply do not fill out. We have an experiment with flooded rice, established by Dr. Dijkman two years ago, which has given excellent results; but we do not know how far this system can be extended in Central America due to lack of abundant water in many regions and the relatively high cost of labor as compared with parts of tropical Asia. Since we have the conviction that some day the Atlantic side of Central America will be producing rice for export in large quantities, we have thought it worth while to experiment with the Asiatic technique.

Our dairy herd continues to attract favorable attention, as do also our hogs. Rodolfo Zamora maintains milk production at 25 lbs per cow per day, based on half to three-quarters Guernsey, Jersey, or Holstein blood. We are tending to lean toward the Guernsey; perhaps Holstein if you are living at fairly high elevations in Central America and are going to sell milk. We have spent 13 years building up our dairy herd; now we think we can devote more attention to beef cattle. We have one Red Polled bull, one Brahma, and two Aberdeen Angus. Students will have opportunity to compare results, and this is of course our principal objective. As regards hogs, the place seems fairly crawling with pigs since we abandoned our program of pure-bred Hampshires and are crossing boars of this breed with native and half-blood sows. It seems to us that the principle of crossing the most adaptable standard breeds of cattle and hogs with native stock, plus good feeding, may be the best thing for the small farmer in tropical America.