

"We know that all the schemes and proposals cannot be immediately adopted and given effect to; but the Government may, after a consideration of our suggestions, work out a programme of expansion for a period of five or ten years. It is a matter entirely for them to set forth in a systematic form their plan of expansion subject, as it will no doubt be, to financial exigencies. We regard it as important that some plan or programme should be adopted and when once adopted, that plan should as far as circumstances permit, be adhered to and carried out."

ABSTRACTS

Growing plants without Soil. Thanks to Dr. W. F. Gericke, the pioneer in plant nutrition of the University of California, growers in Los Angeles and California are successfully growing vegetables and berries in nutrient solutions, heated by electricity.

Electric heating cables run under the bottom of vats. A mesh wire layer covers the top on which litter is spread to serve as seed-bed and insulation against heat-loss. The plants or seeds are placed on the bedding, and kept moist by the water in the vats. As a result of growth, the roots descend into the water when the necessary chemicals are added to the water in the right proportions. The electric cable keeps the solutions at the required temperature.

Success has been reported in the case of tomatoes, sweet-peas and strawberries. The tomatoes come to harvest earlier than 'soil grown' ones, the yield large, the quality better and hence the premium on the market price higher.

Dr. Gericke is expanding the use of this technique to the growing of tobacco, cucumbers, papaya, and other floral crops. (*Scientific American*, October 1936).

K. S. R.

The Stock Improvement Scheme in S. Rhodesia. A stock improvement scheme has recently been launched by the Government to assist stock owners to import or to improve their herds or flocks. The scheme is to be operative for the official year 1936-37 and to be limited to £ 3000 provided.

Applicants for the Government subsidies should satisfy the following conditions:—

Sufficient supplementary feed must be available for the cattle and the sheep during dry weather and arrangements made to prevent heifers from breeding till the proper age is reached. The flock must be dosed regularly for internal parasites and in the case of sheep, mating to be allowed only during the breeding season. The farrowing pens for the pigs are to be provided with concrete floors.

The bull, ram, or boar selected should be approved by an officer of the department.

In the case of animals imported from the United Kingdom, the Government will contribute a sum not exceeding half the certified landed cost of the bull, limited to the maximum of £ 75, and in the case of pedigree rams or boars, limited to £ 20 per animal. The export from the United Kingdom in these cases is to be arranged through the High Commissioner for S. Rhodesia. The importer should specify that the animal is certified to be good value for the money.

In the case of animals purchased in the colony of S. Rhodesia and imported from any territory in S. Africa the Government will contribute a sum not exceeding half the certified cost of the bull or ram and boars, subject to the limit of £ 15 and £ 4 respectively. But at the discretion of the Minister of Agriculture and Lands, the contribution may be increased to £ 25 for stud bulls got in established pedigree herds. The assistance to any one breeder will be limited to 2 bulls, 2 rams or one boar during the year.

Under special circumstances, approved breeders may purchase pure bred female stock; in such cases the Government contribution will not exceed half the amount granted for the respective lines.

No animal will be eligible for more than one grant during its lifetime

Breeders with animals that are likely to be useful in this scheme are required to invite the Department to inspect the same for disposal to future applicants.

No grants are paid on bulls of over eight years of age.

No animal under grants may be sold off within 12 months from the time of the grant.

The animals must be of the right age and healthy.

The home bred bulls, and rams, should be differentiated by brandings and ear-tags and the purchase is to be made as far as possible within the colony, unless suitable animals at a reasonable price are not available locally. (*The Rhodesia Agricultural Journal*, August 1936).

K. S. R.

College News & Notes.

Sir John Russel, Dr. N. C. Wright, and members of the Animal Husbandry wing of the Imperial Agricultural Research Council New Delhi, visited the Agricultural College and Research Institute between the 18th and 21st instant.

Under the auspices of the Economic Biologists' Association Sir John Russel delivered an instructive lecture on the development of Scientific agriculture.

Students' Corner. The inter collegiate hockey finals was played against the Stanes High School which ended in a defeat to the college by 3 goals to nil.

The second year students retain the victory cup by defeating the first year students in both cricket and hockey in the finals.

Weather Review (NOVEMBER 1936.)

Summary of general weather conditions. A low pressure wave passed over South Peninsula causing heavy rains along its course and passed into Arabian Sea on the 3rd; it persisted in South East Arabian Sea concentrated into a depression by the 7th and then into a cyclonic storm moving west ward and finally became unimportant off the Kathewar Coast on the 15th.

This depression caused heavy rains in the South Peninsula and later on in the western half of the Peninsula. A depression formed in the Bay on the 15th, but disappeared by the 8th after causing locally very heavy rainfall on Coramandal Coast.

The rainfall was in large excess generally in the Peninsula except in Circars. Day temperature was normal through out.

The chief falls of rain recorded were:—

Cuddalore	...	...	9.2	2nd
Panrutti	...	...	8.6	"
Virdhachalam	...	...	5.4	"
Negapatam	...	...	4.6	"
Trichinopoly	...	...	6.2	3rd
Nellore	...	...	5.0	6th
Nellore	...	...	14.1	7th