osite direcr-pruned or oupled with e root prufruitfulness, starvation

ate nitrogen ant physiomato plants very soon out by men to pruning, uite clearly number of ed.

to remove different reour tropical h has welltainly occurs

ected by the ree of their s been found ers may not turing fruit. nitrogen is of flowering, fairly high, the nitrogen condition for g time of the it of fruit.

of pruning is sydrates and s (except in in vegetative un, however, stra strength ientific Agri-

Paddy and Pasture II

"By A. GALLETTI. I. C. S." (Continued from 1925 October Issue.)

Methods of Italian Farmers. In the last article I showed how the rotation of crops had solved the problem of pasturage in Lombardy. My facts and figures are correct but I had given them often before and am not aware that they had made any impression on any one. People only believe what they see themselves.

But after all it is not such a far cry to Milan and more and more Indians, as well as Anglo-Indians, pass through Lombardy every year now. From May to August they will see the paddy growing if they look out of the windows of the train; in May they will see women bending over and transplanting just as they do in India; when the rice is young they will see the week's "drying" or total removal of water. which is not at all practised in India; they will see how well and neatly the bunds are laid and kept and how the water is guided and regulated within the beds, which is not done in India; and how only a measured quantity of water is used. But it will be better to get out at Milan and arm oneself with an introduction and go and see a paddy farm.

An Italian rice estate is strikingly regular. The paddy-fields are exact parellelograms, all the bunds and channels are perfectly straight, and the larger bunds are all planted regularly with trees. The fields are kept beautifully clean either by employing an army of female weeders or by a new method of which Signor Rossi informed me. He sows with a special instrument which makes small furrows and deposits the seeds on the ridge between. The result is that the weeds get drowned while the paddy springs up. Forty days after sowing he passes another special instrument down the furrows to extirpate such weeds as may have come up. His fields were quite remarkably clean. This system is known as the Cabrini system after the inventor and is a recent invention. Signor Rossi said he would be very pleased to show it to any one from India (sowing season is end of April.) All the Lombardy paddy growers use chemical manures profusely. No general advice can be given but there can be little doubt that the profuse use of chemical manures combined with rotation of crops and clean weeding contributes to the high Italian yields.

The visitor may see the regular paddy-fields, the special instruments and the manures. But let him also look at the meadows, both summer and winter, and convince himself that three-fifths to two thirds of the land that could grow paddy is devoted in rotation to meadow and dry crops.

m ta

ha

in

fo

pr

th

in

do

ma

Vie

an

In

pla

an

an

pro

pro

stu

and

thi

reli

thc

the

sho

Mr

wa

mo

lie

cou

anc

Good Rice and Fine Cattle. If the Indian visitor goes to Ravenna a place worth visiting for itself let him also study the paddy growth at the mouth of the river there. It is a country of fine cattle and good pasturage and the chief crop he will see is lucerne. Paddy is grown not so much for its value as because it is the only suitable crop pending the silting up of the soil. When the siol has risen sufficiently, wheat takes the place of paddy The common rotation there is two years paddy, then 2 to 5 years lucerne, so that fivesevenths of an estate may be under fodder and only two-sevenths under paddy. Indian conditions are very nearly reproduced here; the flat swampy country is not unlike Bengal; paddy is not cultivated with care or much manured and made to yield much; but even there, though the population is thick and men must eat, more land is devoted to food for cattle than food for men; and there too the cattlle put all Indian cattle to shame. The Indian is not cruel to his cattle but very very callous. He will not give up one inch of his land to them. He wants it all for kimself. He will only stall-feed a very few and leaves the rest to multiply without limit and then to starve down to the limit that the public pastures can sustain. He takes no thought for what they will do in the hot weather when there is not even the scanty grass of the public pasture and the rocky jungle hills and never dreams of cutting grass and making a hay-stack. In India we have only the straw-stack-stuff fit for cattle to sleep on but not to eat. Let the Indian visitor look about him in Europe. He will find every farm house encircled by as many hay-stacks as straw-stacks.

What The Italian Farmer Does. The Italian peasant lives in a joint family with his brothers like the Indian and is much attached to his brother, and will greatly lament if his brother dies, but far more if his ox dies. Such is the high estimation of his cattle in a country where the bullock is the mainstay of the house though the cow is no object of religious veneration. Let the Indian visitor to Italy learn to appreciate the feeling of the Italian ryot towards "the pious ox whom the mild Virgil loved" and he will come back to India and found a Cattle Protection Society, no longer to protect the Hindu sacred cow from the Muhammadan butcher, but to protect all cattle against the heartless neglect and unconcious cruelty of the East.

The paddy-farmer of India who knows no better than to sow paddy every year in all his fields, has some excuse in the supposed greater value of the crop, But the dry farmer has not even this. His dry crops are usually of little value and it is his clear duty to sacrifice some of them every year and to grow fodder crops for his beasts. It will also pay him. In my part of Italy we used, in my father's time, to divide the land into four parts one for wheat, one for maize, two for fodder, and rotate these three crops. The peasant paid his taxes out of the wheat, fed himself and his family on the

3

or goes to y the paddy of fine cattle rne. Paddy aly suitable I has risen on rotation that fivewo-sevenths luced here: at cultivated even there. nd is devoe cattlle put is cattle but nd to them. ry few and ve down to no thought not even the ills and never lia we have to eat. Let l every farm

sant lives in ach attached but far more in a country ne cow is no o Italy learn the pious ox to India and the Hindu ect all cattle he East.

than to sow the supposed ot even this, clear duty to crops for his used, in my or wheat, one The peasant family on the

maize and his cattle on half the produce of his farm. So he maintained himself and his family on one quarter of the farm and gave half to his cattle. Now we go even further, We divide the farm into five parts, one for wheat, one for maize, three for grass and fodder; and we find it pays. Cattle pay us, quite apart from milk products which we do not get on the dry farms. We reckon onethird of our total profits come from buying cattle as calves and selling as adults. The reduction of our wheat and maize areas have done us no harm. With more and better cattle and more cattle manure we plough and manure better and we get a bigger food crop yield from two-fifths of the land than we used to from half. Again and again I say without good cattle, agriculture will not flourish in India. The present Indian miserable breeds must be entirely replaced. The new breeds must be fed sufficiently, housed properly and restricted in their breeding. Aged cattle should not be kept at all and young cattle should not be allowed to breed.—(The Statesman.)

REVIEWS.

Season and Crop Report.

MADRAS PRESIDENCY 1924-25.

This Report forms very interesting reading, bringing out prominently the inherent defects in the agricultural condition of this province. A close scrutiny of the statistics given would enable a student to understand clearly the rural economics of this presidency and the state of its agricultural condition. The aim in publishing this report seems to be to secure as far as possible accurate and reliable statistics of local agricultural conditions.

The arrangement of the figures and of the statements are thoroughly satisfactory. What would take one year to understand the agricultural conditions of the country, can now be learnt in a short time by a careful study of the above statistics. For this the Director of Agriculture, Mr. Anstead, and his Statistical Assistant Mr. V. N. Viswanatha Rao deserve our thanks.

That the prosperity of the ryot depends upon the availability of water and manure requires no discussion. Owing to capricious monsoons 13.8 million acres of cultivable area has been allowed to lie fallow. If the ryot were able to sink wells in this vast area it could be brought under cultivation with benefit both to the cultivator and the country.