sunny weather. A box filled with four inches of soil will supply a household's needs. Let the box be two feet by fifteen inches. Towards the tenth or middle of May, remove the sash all-day first and after a few days at night also. You then have a box of plants two or three inches high ready for the garden or field. With my own plan I sow early in March and transplant in hotbed in April and have plants about the thickness of a pencil for setting outdoors, an extra transplanting and for keen competition it is necessary. The ground for this crop cannot be too rich. Deep-worked soil and large quantities of manure from the stable are necessary. Preparation for most crops commences in the fall. Bone-meal raked into the onion bed is a wonderful assistance and where this is applied yearly and stable manure added, you have ground prepared for years to come. This crop succeeds well without change of ground. Rake the ground level and get it into good condition. Select a dull day for transplanting, set out in rows fifteen inches apart and six inches apart in the rows. Use a small dibble and avoid planting deep or thick necks will follow. Onions adapt themselves to transplanting and take hold quickly. Those transplanted in the hotbeds are planted with a trowel in the garden. They have a nice ball of soil attached and require more space in the row. Cultivate in ten days or so when they are all straightened up, and continue it all summer and keep weeds out.

They will stand weekly applications of artificial manures in July and August, if you intend to make the onion patch a "hummer." A rotation of nitrate of soda and garden fertilizer is satisfactory. These should be applied thinly between the rows and cultivated in previous to rain, if you have no water to apply by hand. Nitrate must not come in contract with the bulbs or foliage or a burn-out will be the result.

With the intention of exhibiting at fairs, a selection of the best onions should take place a week or ten days previous to the date of exhibition, in order to dry and mature them. Place in a dry open shed with plenty of light. This should wither off the stems. Cut off the stems and wipe any mud off with a wet cloth. Sometimes onions are pulled and the stems cut off and staged on the show-board in one day. Such onions lack firmness, finish, maturity, appearance and generally commence to grow again. They seldom get to the front.

Size is the dominant factor in onions, but ripeness and similarity of type are considerations. A large onion among eleven others of equal size counts for nothing. Symmetry is essential to success. Adhere to the quantity called for. You will find it a pleasure to exhibit. You will have a double interest in your local fair and a three-fold interest in your garden next year. The whole question of keeping onions in winter is to have them properly ripened in the fall by turning them over to the sun and getting the stems thoroughly dried up before cutting off. Use or dispose of all thick-heads and those not properly ripened first. A decaying onion seems to contaminate others. A cool place that keeps out frost is needed and must be dust-dry. It is the damp ill-ventilated places which cause onions to sprout. Ripeness is the prime factor in winter-keeping. Try this large onion growing. Our motive is to have every farmer grow his own supplies in the vegetable line and to have them choice at that.

Carleton Co., Ont. A. V. MAIN.

## Tomato Culture.

Almost anyone with a garden or farm in a temperate climate can grow tomatoes with greater or less success but there is a great difference between the extent and quality of the crops grown by different persons in the same locality. These differences are due to several causes among which the varieties grown and methods of cultivation practised are perhaps the chief.

According to experiments carried on for years at the Experimental Farm at Ottawa, Earliana, of which there are sevaral strains, is the best early sort, but Bonny Best anh Chalk's Early Jewel are also good early kinds. Of later varieties, Matchless Trophy, Livingston's Globe and Plentiful, rank high.

It is the early fruit that makes the profit. In growing plants what should be aimed at is the production of a stocky, sturdy plant which will have some fruit set upon it when set in the field. After planting the chief work is cultivation which should be done both ways in the plantation.

In order to protect tomato plants from diseases, of which there are several, they should be repeatedly sprayed, even when quite young, with Bordeaux mixture. These and many other points, which cover practically the whole field of tomato culture in the green-house as well as in the garden and field, are fully treated in phamphlet No. 10 of the Central Experimental Farm, prepared by the Dominion Horticulturist, W. T. Macoun. This work is for free distribution to all who apply for it to the Publication Branch of the Department of Agriculture at Ottawa.

# THE FARM BULLETIN.

## P. E. Island Notes.

Editor "The Farmer's Advocate." :

On the 27th of February, the annual meeting of the Dairymens' Association was held in Charlottetown. The attendance was only fair but those present were the men who had the interest of co-operative dairying uppermost in their minds. The President, J. A. Dewar, read an opening address in which he discussed the dairy situation on the Island. He urged the dairymen to stand together, support and lead on to greater success the dairy industry which engaged in intelligently was about the most remunerative branch of our agriculture.

The secretary, in his report gave the figures of the production of butter and cheese in the factories for the past year. 25,201,885 pounds of milk was made into 2,424,636 pounds of cheese, the gross value of which, $315,003.22 and the net value to patrons, $258.495.77—The price of milk ranged from 98c. to $1.08. The amount of milk to make a pound of cheese showed a wide range, all the way from 10 lbs. to 10.85.

The butter factories received 12,200,944 pounds of milk and produced from it 527,494 pounds of butter of a value $119,023.39 which was divided among 931 patrons.

Compared with the previous year there was a falling off in cheese to the value of $2,000 and a gain in butter amounting to $6,000. Quite a few of the smaller cheese factories have gone out of business, or only ran for a very short time during last season.

Mr. Morrow, the travelling instructor, reported nearly all the factories well kept and doing good work—but he found that in some cases cheese-makers should get instruction on the care of boilers and other factory machinery. The price of cheese here last ear was the highest ever received—and the quality of the output, with very few exceptions was equal to any in the market.

One of the greatest needs of co-operative dairying here is the improvement of the dairy herds. Some patrons have set the pace in this matter, and by making a specialty of milk production are reaping large rewards—but too many patrons are still going on in a slipshod way, neglecting to improve their herds by selection or to properly feed and care for the cows they have.—This makes it difficult to make the factory-system the success it ought to be—as a sufficient quantity of milk is not available near enough to a factory to ensure cheapness in manufacture.

A central creamery is to be established in Charlottetown, in connection with the Cold Storage plant there. This with the condensery in the same city, will have a tendency to lessen the supply of milk available for cheese the coming season. But it will result in a better quality of produce than is generally put up on the farms, and will return more cash to the milk producers who have been making butter at home.

March has been a month of seed shows, no fewer than five being held. King's County had three so located as to cover the County well. Then the Provincial Show was held in Summerside, and last, but not least, the "Central Seed fair" in Charlottetown. At each of them the attendance was large, and the samples on exhibition were ahead of the usual high standard of Prince Edward Island seed shows. The Island Province is fast becoming an important source of supply of the very best varieties of grain for the other Maritime Provinces, and some is also finding a good market in Quebec and Ontario. We have here quite a large number of farmers who make a specialty of producing good seed in oats, wheat and barley. Quite a number of them are practising hand selection, and have been working along that line for over twelve years—or since the McDonald-Robertson competition was inaugurated.

The Island is particularly adapted for the growth of pure seed grain on account of the absence of noxious weeds, such as wild oats and many others that we are still free from. Since the inauguration of these seed shows, and the good teaching disseminated from them, a strong demand has arisen for good, pure seed from our own farmers, till now everybody wants the best, and is willing to pay a good price for it. Just now while ordinary shipping oats are worth about 48 cents, good clean selected seed can find purchasers at 75 to 85 cents per bushel, and we believe that some members of the "Seed Growers' Association" are getting $1.00 a bushel for registered seed oats. As a result of the teaching given at our seed shows and the rigid selection of seed grains, the crops here are yielding an increased average each succeeding year. Our Department of Agriculture is alive to the wants of the farmers, and each year is doing more and more to educate and stimulate them to follow a more successful and profitable system. These seed shows are object lessons on what can be accomplished in improving farm seeds, and the lectures and addresses by expert judges have been a great education to all our farmers on the necessity of grading up all along agricultural lines.

Prince Edward Island has now quite a strong and vigorous Agricultural Department. Our Live-stock, Poultry and Fruit Departments each have an expert to direct effort along these lines, and our popular Commissioner of Agriculture, Mr. McKinnon, has proved his ability to grasp the agricultural situation, and with his efficient staff, is leading farmers forward along all lines of up-to-date agriculture. The next forward move is a horse show. This will give farmers a chance to see and examine and choose the best stallions that will be in the stud this season. In connection there will also be a sale of horses.

W. S.

## The Aid Agriculture Needs.

Editor "The Farmer's Advocate." :

After reading your editorial on that busy farmer and a lot of free advice given by people who do not know what they are talking about, but think they do, and all about the ten million given by the government in aid of agriculture, supposed to be spent on education, but which will, no doubt, dribble through the hands of a lot of political buccaneers till there is nothing left to aid agriculture or anything else, we are moved to sit back and reflect on the aids other industries get, and which, if applied to agriculture, would solve the problem very quickly. For instance, Mr. Editor, when a man seeks to start any other industry, the first thing he seeks is exemption from taxation. How many farmers would throw up their hats if they could get rid of taxes? Then they try to get all their raw material free of duty. Ah, if the farmers could only get that thirty per cent. leak hole stopped! Then further, the steel industry received enough hard cash in bounties to pay the wages of their entire staff of employees. Oh, Mr. Editor, if the farmer could get all the hired men he needs paid, wouldn't the old farm flourish? It could then be worked to the best advantage, and its production would, no doubt, suit the worst skunk of a millionaire "pooh bah" that ever gave advice to a farmer. I want you to reflect on this bounty idea. It's a good one. Just suppose the government gave so much for every hundredweight of beef, mutton, pork, milk, butter, cheese and poultry, so much for every case of eggs, etc. I won't admit cereals to the list for I am sticking to the factory idea, and if the production of our farms is to be increased, we must turn out the finished article and return the by-products to keep up and increase the fertility of the land. But you say where is the money to come from to carry out this idea? I do not believe in taking money from those that have little or none, it's only the politicians that do that, but I would have you notice that Sir William MacKenzie and thirty-nine others in Toronto, and Sir Rodolphe Forget and a lot more in Montreal have millions of it. Hon. H. R. Emerson named twenty-three in parliament the other day who held the commerce of all Canada in their hands, these are the lads to bleed. No doubt they would, to use a McArthurism, "swell up like toads," at the very idea, but then agriculture has been bled till it staggers for these men and their like, and I deem it only fair to put the shoe on the other foot. There are so many vexed questions that might be laid at rest if agriculture received the suggested aids, why there would be no "back to the land" cry. Everybody would be scrambling for land—no need to talk and plan all sort of useless schemes to keep the boy and girl on the farm; they would never leave. No need to talk "under production" and "high cost of living," for, with government paid help, the farmers would make those problems fade away. Sure, these aids have made the others millionaries—now, let the farmers have them.

WAUBAGEZEK.