

The Farmer's Advocate AND HOME MAGAZINE.

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IN THE DOMINION.

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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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Can Soil Be Drained too Dry?

It takes about 24 inches of water to produce a crop of corn, said Prof. Wm. H. Day to the Ontario Corn Growers' Convention. This means that if all the water necessary were spread over the field, it would form a lake two feet deep. Underdrainage will help to conserve this moisture. While taking off the surplus water, which delays planting and interferes with cultivation, it will make the soil more porous, so that after the free water is drawn off, there will still be more moisture available for the crop in a dry time than there would be on undrained soil.

It seems strange that drainage should increase the soil's resistance to drought, and there are those who profess to fear the possibility of getting their soils drained too dry. From scientific study, backed up by personal experience, we are convinced that this is rarely, if ever, certain, but that on semi-arid soils, where moisture is the limiting factor in crop production, and where it is almost impossible to get into the subsoil a fully adequate supply of water for maximum crop production, underdrainage might possibly be a disadvantage, though we are not sure of this. Under Eastern conditions it works out quite otherwise. The nearest we ever saw any piece of land come to being apparently thoroughly drained out, was at Weldwood in the spring of 1911. An old pasture was being broken for corn in May. The spring and early summer were unusually dry. Two lines of shallow tile ran through hollows which crossed the field. The early growth of grass had helped to dry out the land, exhausting the free moisture and drawing upon the capillary supply. The undrained portion of the field was not too dry to flow nicely, but those tiled hollows plowed rather hard, turning up flaky lumps. The corn when planted was a week late in coming up here, and it did look as though in this particular instance drainage might prove a disadvantage. Once the corn got up, however, it made up for lost time, and the crop here in the end was quite as good as on similar undrained hollows. Had the field

been plowed earlier, as it might have been, the drained hollows would undoubtedly have given the better yield, even in the unprecedentedly dry summer of 1911. We need scarcely add that the oat crop in 1912 was far heavier on the drained than on the undrained areas, while the soil was also much firmer at harvest. If ever drainage should have proven a disadvantage, it was in the case cited above, but the results were merely negative, while this season the advantage of tiling was most conspicuous, not only in the grain, but even more so in the contiguous corn fields. In an average of ten years' time, drainage will make for a wonderful increase in yield of crops and a great improvement in seeding and harvesting conditions. It will pay big interest.

The Farmers' World Parliament.

From a special correspondent.

Standing on an eminence in a lovely spot of the beautiful Villa Borghese, Italy, girded about with dark, clustering pines, is a noble-looking building—the home of the International Institute of Agriculture. This palace is a king's gift and a gift worthy of a king. Within is ample space for delegates, clerks, interpreters, and so on—and there are beautifully furnished committee-rooms and a fine saloon for receptions. Best of all is the large hall for the General Assembly, containing a rostrum for seats, senate-fashion, in tiers round the walls. Best because it is the room which makes one think—nay, more; it brings with a rush the realization of all this work is doing and may yet accomplish. For each seat in the assembly-room bears the name, not of a man, but of a nation.



David Lubin.

Though the Institute is cradled and housed in Rome, the world is indebted to the Far West for the idea that gave it birth. David Lubin, the truly remarkable man who conceived the project, is a Californian. Abandoning everything for the furtherance of his scheme, he travelled from place to place seeking the sympathetic help and congenial atmosphere necessary for its initiation. To understand how a work so vast and so daring as the Institute has inaugurated came to be attempted, one needs to understand David Lubin. He impresses one as a man who has seen a vision and as a man who thinks not in States or Empires, not even in "continents," but in no smaller limits than the world. He has dreamed of federating the world and sweeping it for facts and figures, intricate and complex, and his mental eye was fixed on the one small point of truth that should issue from such figures. This truth, when obtained, he desired to give back to the farmers and the world in a simple form, which he calls the "Single Numerical Statement." Starting from the point of view of some lone farmer in a remote district struggling with the problems of produce and prices, Mr. Lubin sketches his position wholly at the mercy of the manipulator of

markets or some trust. Such a man, say, in California, sees how he would be helped if he but knew the crop conditions of the whole of his State—better still, the whole of his country—and thus some years ago the United States did begin collecting and issuing facts and figures. Soon, however, the farmer sees this very guide is a false guide, because it represents a part only of the world, and he needs the complete knowledge which can only be given, not merely by his nation or his continent, but by the entire world. To procure such world-wide information as cannot fail to be a true guide, both for producers and consumers, is the work David Lubin set himself to do. With indifferent health (he cannot walk upstairs), but with indomitable courage, he has for years sacrificed strength and means to realize his aim, devoting time and labor gratis to the cause.

The obstacles which faced him are too numerous to state. Some will be sufficiently obvious—to covert others, to his point of view, to obtain enough money for an undertaking so large, to win the adherence of all the nations of the earth, and to educate them when won in the intricate methods of organization necessary for procuring accurate returns.

It was in King Victor Emmanuel of Italy that Mr. Lubin found at last a willing ear and a mind quick to grasp his idea and realize its world-importance, while to this Royal sympathy and appreciation was joined the munificence which built the Palace of the Institute and endowed it with \$60,000 a year. Thus, Rome became its home, and in 1905 the delegates of the various Powers gathered there and signed a covenant to create the International Institute of Agriculture. After a few years, the lines of work once laid down and initial difficulties overcome, the work began to grow. A man capable of dealing with the complicated figures involved was found in Professor Ricci, while the general management was entrusted to Professor Lorenzoni. Not, however, till July, 1910, did Mr. Lubin see his vision taking shape and materializing into reality. In that month the first "Single Numerical Statement" was published; though only for six nations, it was felt to be a triumph, and in August the data for eleven nations was issued in the monthly bulletin. This progress has been maintained till now, in 1912, fifty countries adhere and provide the necessary data. One nation after another is learning accuracy, Russia being the most recent adherent. She, after a visit and an eloquent appeal from Mr. Lubin, has now promised to contribute her returns accurately and in figures. In fact, the nations adhering to the Institute now represent 95 per cent. of all the land of the world and 98 per cent. of the population of the world; thus, the Institute's summary is already nearly the world's summary. There exists, no doubt, in the minds of those daily engaged in the work that it has already begun to exert influence, and that influence is bound to increase. That the world at large is beginning to realize its value is abundantly proved by the fact that money is being appropriated for its support. Besides the King of Italy's annual endowment of 300,000 francs, other countries have been contributing 499,500 francs yearly, and in the recent session of the United States Congress an appropriation of \$18,000 was voted for the Institute.

During the infancy of the scheme, while it was only possible to deal with a few nations, so also it was only possible to attempt gathering returns for a few—the most important—products. These were wheat, oats, rye, barley, maize; but later others were added, such as rice, cotton, tobacco, sugar beets, sugar cane, vineyards, etc.; while such staples as wool, silk, leather, and others are yet to be dealt with. But the Institute does not confine itself to being a bureau of statistics; it occupies itself also in collecting and disseminating information on many subjects relative to agriculture, such as the wages paid to farm work, diseases of plants and animals and their remedies, co-operative banking in its various forms, credit and insurance, and kindred subjects. All this and much more, the zeal and faith, the wide-mindedness and persistence of Mr. Lubin, have inaugurated. It inspires only to hear him talk about his work—of its conception in the Far West, the obstacles, the toil since its initiation, etc. Already much is accomplished, for he can sit calmly in his quiet office in the Palace among the trees and there receive in continuous stream the data of fifty nations. This converging data, converted by experts into a mathematical formula, the "Single Numerical Statement"—his vision, he sees goes forth again, clear and authoritative to all those countries, and through their Governments it reaches the markets of the world, the consumers, and every isolated producer on his farm. The International Institute of Agriculture is surely a Peace Society in practice. To build up rather than destroy; to make life easier, not harder; to regulate supply; to link together all nations by their common needs and