

## On the Reclamation of Peat-Land in the Netherlands.

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HELENA-VEEN (NORTH BRABANT).

10 **Description of Property and Owners.** — The tract of peat-land, known as the Helena-  
veen, is the property of a company called the "Maatschappij tot exploitatie der Peel  
genaamd Helenaveen." The director is Mr. G. van der Griendt, of 's Hertogenbosch, and  
the resident manager is Mr. Schellings. Both these gentlemen did all in their power  
to facilitate my inquiry, and to the latter I am specially indebted for devoting a  
long day to showing me everything of interest connected with both the working and the  
15 reclamation of the peat. Before describing this estate, I ought to mention that it is  
the most striking and most successful example that has come under my notice of the  
application of a large capital to the cultivation of peat-land.

20 The estate comprises 2,250 acres, and the capital of the Company is nearly 60,000l.  
(700,000 guilders). Every year 10 per cent, of the net profits is reserved as an  
addition to the working capital, and about 8000l., have thus been applied. Still the  
nominal capital on which dividends are payable remains at its original figure. The  
dividend paid has generally been at the rate of 5 per cent, per annum. In some years  
it has risen to 6 and even 7 per cent., but the last three years it has fallen to  
25 under 3 per cent. The agricultural success of the Company must not, however, be  
measured solely by the amount of the dividends, because a large proportion of the  
capital has been expended on permanent works which yield little or no monetary return  
at present, but which are nevertheless essential to the reclamation of the peat-land.

30 **Canals.** — Thus the Company has made between twenty and twenty-five miles of canals,  
and recently they have purchased a strip of land, about 300 yards wide, which will  
enable them to extend their main canal close to the newly opened railway station of  
Helena-veen. For years they had been trying to purchase a strip of land from the  
adjacent Commune of Deurne to enable them to make a canal to the station of that  
name, which has long been in existence; but from some unexplained reason the Commune  
35 would not sell the land. The new station of Helena-veen is only half the distance  
from the estate that Deurne is, and it is expected that the canal will be finished in  
a few months. A small steamer already lies on the main canal, and when the water  
communication with the railway is completed, the cost of carriage of produce (which  
over peat-roads is now very great) will be materially diminished. Thus the profits  
40 will be larger, while its greatly increased accessibility will add materially to the  
capital value of the land.

The strip of land bought for the canal being, as already stated, rather more than 300  
yards wide, and the canal itself not occupying more than one-third of its width, a  
strip of land on each side, having a depth of 100 yards, will remain the property of  
45 the Company. This is sufficient to enable them to make a road, and to lay out the  
land in building plots on each side of the canal, which also will continue their own  
property, and yield an increasing revenue in tolls. The importance of these  
considerations will be better understood after a study of the short space devoted  
presently to a description of the Groningen "Colonies."

50 **Area under Cultivation.** — At present about 200 acres are cultivated by the Company,  
and an equal area by the labourers and officers. The stationary population numbers  
about 400, of whom between 200 and 300 (including men, women, and children) work on  
the estate. In the summer large numbers of work-people come from North Holland and  
from Germany to dig peat, and make up the total number to between 700 and 800.

55 **Mode of Reclamation.** — The mode of reclamation of the peat- land is as follows: —  
After a certain depth of peat has been taken out —generally from 3 to 6 feet— a layer  
of sand, 3 to 4 inches thick is mixed with the replaced surface-soil by means of the  
spade, and a heavy dressing of street-manure is given; and each succeeding year the  
land is cultivated to a slightly greater depth. Manure, sand, labour, &c., cost about  
60 20l. per acre; but after five years' culture agricultural land is considered to have  
paid all its expenses, and to remain as property acquired for nothing. In some parts  
of the estate the layer of peat is very thick, but it rarely pays to take it out to a  
greater depth than 6 feet. In many cases, therefore, the undisturbed peat remains the  
subsoil, and acts like a sponge, retaining moisture for the roots of the plants when  
65 those roots descend in search of it, — but at the same time never becoming super-

saturated, as any excess flows off into the adjoining ditches, which here, as in other peat-reclamations, are an essential part of the system. About twenty-five acres per annum are added to the cultivated area, the limit being imposed by the want of hands to reclaim a larger acreage.

70 **Tobacco.** – Of the 200 acres of reclaimed peat-land cultivated by the Company, forty acres are cropped continually with tobacco. Although always grown on the same land, the broad ridges of one year (carrying two rows of plants) become the equally broad  
75 trenches of next year. The manure used is sheep-dung, with very little straw amongst it, and the value of the annual dressing is estimated at 10l. per acre. It is put in the trenches in the spring, and then the land from the ridges of the previous year, and always a little more of the peaty subsoil, are turned over to make the ridges of the next year.

Tobacco-plants are raised in frames, covered with oiled paper, and are planted out towards the end of May. The leaves are harvested by plucking them two or three times, 80 the first picking possessing the best quality. The men who do the work get half the proceeds for their labour, which includes ploughing and other acts of cultivation, sowing, weeding, harvesting, and drying. The Company finds manure, seeds, frames for raising the plants, implements, and the barn for drying the leaves. Each barn is designed to dry the produce of about 6 acres, and there are 7 for the 40 acres or so  
85 which are annually cropped with tobacco. At each end of the barn is a cottage for the labourers, and two men are considered enough to do all the labour for the six acres. Thus the same two men always work together, cultivate the same land, use the same barn, and divide half the crop, or its value, between them.

**Other Crops.** – The remaining 160 acres cultivated by the Company are farmed as a rule on a four-course shift, viz. :-

(1.) Potatoes with a double dressing of manure.

(2.) Oats, rye, or wheat, with a single dressing of manure, and sown out with clover.

(3.) Clover manured in spring.

(4.) Flax without manure.

95 There is also a little permanent pasture, which reduces the area of each break to something under 40 acres. The first four years after reclamation the cost of the manure is about 6l. 10s. per acre for the whole course, and after that period about half as much. The manure used on the estate consists almost entirely of the street manure and vendange of 's Hertogenbosch, which is brought as a return cargo by the  
100 barges which deliver the peat. The Company pays a small sum annually to the authorities of the town for the monopoly of the manure.

As about 25 acres of land are brought into cultivation every year, I was able to examine a piece of land which had been just reclaimed and had been planted with potatoes as a first crop, a second sown with oats as a second crop, a third-year  
105 piece bearing a crop of clover, and a fourth-year field with its plant of flax. The gradual improvement in the agricultural condition of the land could be easily seen; the crops looked remarkably well, and the year then (June 1880) promised to be a productive one in that locality. Potatoes are said to average 8 tons per acre, wheat and rye from 27 to 33 bushels per acre, and oats give a very much larger yield. The  
110 seed corn is generally obtained from Mr. van den Bosch at the Wilhelmina Polder.

**Sheep.** – About 400 to 500 sheep are bought annually. During the summer they run on the roads and other more or less waste places. In the winter they are fattened in sheep-stables on beet-root-pulp, oats, linseed-meal, &c., and sell at from 21. to 21.  
115 Gs. 8d. per head, the best going to England, and the rest to Belgium. Very little straw is used for their bedding, and the manure is used exclusively for the cultivation of tobacco.

**Market-gardening.** – Mr. Schellings has about 20 acres devoted to the growth of market-garden and fruit-crops. Some of this land he bought of the Company at 66l. per  
120 acre, and some of it he rents at 5l. per acre. A few acres, belonging to a neighbouring commune, he purchased at 33s. 4d. per acre, and he spent in one year 30l. per acre in labour, manure, &c., in reclaiming it. This land now bears splendid crops, while all round in the country is a mere wilderness, not to say a desert. He considers that his garden is now paying him back some of the capital which he has invested in its cultivation, and that the land is worth to a purchaser double the  
125 amount that it has cost him. The produce of this market garden often realises as much as 80l. per acre, but then the cost of manure and labour frequently amounts to 50l. per acre, of which about two-thirds are paid for labour. The cost of the plant, more especially of the frames, is also very great.

**Succession of crops.** – Each year the land carries two, three, or more crops, and the following are specimens of the succession taken on the same land in one year:-

130 A. (1.) Cauliflowers planted in spring, with (2) runner-beans, either flageolets or

haricots, sown between the rows, and (3) endive and celery planted between the beans, after the cauliflowers have been sold.

135 B. (1.) Potatoes; (2) runner-beans between the rows as before; and (3) endive and celery taking the place of potatoes as they are dug and sent to market.

C. (1.) Carrots, which are sown mixed with leeks, and sometimes also with cabbage lettuces. After the carrots are marketed, the lettuces develop themselves, and finally the leeks, which remain until the winter, as this vegetable is not blanched in Holland as it is with us.

140 D. (1.) Peas with radishes, spinach, &c., between the rows; (2) the small seeds are succeeded by Brussels sprouts; and (3) peas are succeeded by endive.

E. (1.) Potatoes, followed by (2) late cauliflowers or Brussels sprouts or beet.

145 F. (1.) Early potatoes planted in rows wide apart; (2) intervals between the rows of potatoes sown with cucumber seed in the middle of May, the produce to be used as gherkins for pickling; (3) after the potatoes are lifted (in the middle of June), cauliflower plants are pricked in; and (4) after the gherkin plants are cleared away the ground is occupied by salads. This mode of cropping requires, it need scarcely be added, a very heavy dressing of manure.

150 G. This is rather a special system of cropping, and may be shortly described as follows: - Cauliflowers having been sown in a frame in September, the plants are transferred to a cold pit in November. In January or February they are shifted to a hot-bed, in which they are planted about 8 inches apart. Between them carrots are sown, and cabbage lettuces are planted. The lettuces are pulled in March and the glass is then taken off. In May the carrots are pulled, and in June, or even earlier, 155 the cauliflowers being ready, the alternate ones are cut and the remainder are left to run to seed. An acre of land would yield, on an average, from 100l. to upwards of 130l. in cauliflower seed, but Mr. Schellings has only about a quarter of an acre devoted to this description of culture. The mean price received for the seed is about 6s. per lb., but it ranges between 4s. 6d. and 9s.

160 **Fruit-trees.** - Mr. Schellings has also 5 acres of land planted with fruit-trees, which are chiefly apples and pears, with bushes of gooseberries and currants, and canes of raspberries between them, while on the walls separating the sections of the garden, grapes are cultivated as in the Poeldijk district of Westland, just as the vegetable culture is an imitation of the practice of the Loosduinen section of the 165 same district.

**Labour.** - The labour question has received the most careful consideration from the managers of the Helena-veen Company, - it may be because they are very desirous to attract good labourers, and especially those with large families, to settle on the estate.

170 However that may be, their care for the moral and material welfare of the stationary labouring population is worthy of all praise, and the condition of these labourers stands out in bold relief to that of the ordinary agricultural labourer in most districts of the Netherlands. Nearly all the farm work is done by the piece, but an average industrious man can earn about 35l. per annum; a strong lad of over 16 years 175 of age can earn 25l.; and young women almost as much. The labourer can hire from the Company a cottage and about an acre of land for 3l. to 4l. per annum, according to the accommodation provided.

There are other and somewhat unusual regulations and facilities, some of which deserve special notice.

180 **Contracts with labourers.** - The Company have made contracts with their labourers and with their public-house tenants, prohibiting the latter from selling, and the former from buying any spirits, except on Sundays before noon. Any infraction of this rule, if discovered, is immediately followed by eviction of the publican and the labourer, and the discharge of the latter from his situation. Beer, however, is allowed to be 185 bought and sold at any time. The Company has also established a means of enabling the labourers to purchase their cottages and allotments by periodical payments to cover principal and interest, and they have found this plan a great incentive to industry and to habits of economy. In some cases, also, they have given a deserving labourer a cottage and piece of land rent free for ten years, on condition that he brings the 190 land into a proper state of cultivation, to the satisfaction of the manager, within a stipulated time, and keeps it in a state of good culture during the remainder of the period; but he can be evicted at any time if he infringes the Company's rules, and if he dies his family have no claim upon the Company for the improvements which he has made, or otherwise. In fact, the Company does not surrender, in any respect, its 195 proprietary rights, but what it does in this way is merely an act of grace. Still, the effect has hitherto been most beneficial to the labourers; some few are even beginning to cultivate tobacco on their own account, and to imitate the managers in

their market-garden operations.

200 **Results.** — Mr. Schellings assured me that he was quite satisfied that the labourers  
on this estate were much better off than the peasant proprietors in the neighbouring  
districts, because the former always have money either to spend or to save, and their  
are sober, —originally by compulsion, but now by habit,— whereas the peasant  
proprietors live on the produce of the soil, have very little surplus to sell, and  
205 therefore very little money to buy things not produced on the farm; while, of the  
little money that they become possessed of, a large proportion is spent in drink  
(Geneva).

**Peat workers.** — Against this somewhat rose-coloured picture of the condition of the  
constant labourers on this estate, must be placed that of the peat workers who come,  
as already stated, every summer. A good workman cutting peat can earn as much as 4s.  
210 per diem, but some only gain 2s. 6d. Those not sufficiently skilled to do the  
cutting, can earn from 2s. 6d. to 3s. 4d. per diem on other portions of the work of  
peat-winning, while women and boys earn from 1s. 3d. to 2s. per diem. It must be  
understood that these high wages are earned only during the peat-cutting season,  
which lasts three months. The migratory labourers are all men, and they live in small  
215 cabins on the peat-beds. Each cabin holds from 8 to 12 men, and the Company provide  
them each with a sack of wool as a bed, and a blanket as a covering, also certain  
necessary articles for the menage.

**Contrast with other peat-lands.** — The contrast between this "Veen" and the reclaimed  
peat-lands already described is so great, that an explanation will naturally be  
220 sought for. Mr. Schellings declares it to be his opinion that nothing but the  
application of a sufficient amount of capital per hectare is necessary to enable  
Hoogeveen, Prince-Peel, and other high-lying peat lands, to be brought to as high a  
state of productiveness as Helena-veen. Eventually the Company will sell or let the  
reclaimed lands, and I was informed that now farms of 50 acres, on which tobacco,  
225 flax, and market-garden crops, as well as ordinary farm produce, can be grown, could  
be hired for a term of years at about three guineas per acre.