

1. *Rotation of Crops with reference to the Cultivation of Flax.*

Examples.	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.	Sixth Year.	Seventh Year.	Eighth Year.	Ninth Year.	Tenth Year.	Eleventh Year.
Department of the Nord	Rape	Wheat	Potatoes	Wheat and clover	Clover	Beetroot or potatoes	Oats	Flax and turnips	Wheat	...	...
Belgium. Environs of—Commines ...	Tobacco	Rape	Wheat and clover	Clover	Rape	Oats	Flax	Turnips	...	...	...
Thiet ...	Flax and carrots	Wheat	Rye and turnips	Barley and potatoes	Wheat	Rye and turnips	Oats and clover	Clover	...	...	...
St. Nicholas ...	Wheat or rye	Flax and clover	Clover	Wheat or rye	Rye	Oats	Potatoes	...	...	...	...
St. Giles Waes	Potatoes	Wheat or rye	Flax and clover	Clover	Barley or wheat	Oats or buck-wheat	...	...	...	...	...
Sotteghem ...	Wheat	Rye and turnips	Oats and clover	Clover	rye* Horse-beans	Flax	Wheat	Rye and turnips	Oats and clover	Clover	Potatoes

* Turnips are sown after the harvest.

2. *Opinions as to the Possibility of Sending the Flax-Straw to Europe for Manufacture.*

The cultivation of flax (for fibre) has not succeeded in Algiers on account of want of water for the operation of retting; and it has been found impracticable to send the flax-straw to France on account of the carriage—the flax-straw occupies too much space, and only contains from 25 to 27 per cent. of fibre. What applies to Algiers would equally apply to New Zealand as regards the shipment of flax-straw. (Flax is cultivated in Algiers for the seed.)

3. *Best Mode of Packing and Pressing the Dry Straw.*

The question of the packing dry flax-straw has been under consideration at Lille for several years past, with a view to the import of the Algerian and Russian flax-straw; but as yet there has been no solution to the problem, and, as a matter of fact, it is not done.

4. *Price likely to be obtained for Fibre imported into Europe.*

Flax grown in the north of France varies in price from £48 to £96 per ton; some fine qualities reach £120 and upwards per ton. Russian flax varies from £34 to £50 per ton; some fine qualities reach £70 to £80 per ton.

5. *Machinery best adapted for Scutching the Flax, and for the Preparation of the Dried Flax-Straw.*

Flax-straw (after being retted) is first passed in a machine for breaking the straw to which the fibre is fixed. This straw-breaking machine is composed of five or six pairs of fluted rollers, and one pair of plain rollers, suitably fixed in two frame sides. The straw is passed in between the rollers. Six lads will break from 2½ to 3 tons of straw per day of twelve hours' effective work.

After being broken, the flax-straw is presented to the scutching machine, which removes the straw from the fibre. This machine consists of a shaft (running at a hundred revolutions per minute) on which is fixed a cast-iron disc, studded with twelve arms, at the end of each of which is bolted a thin, flexible lath of walnut wood or hornbeam, about 4 inches wide and from 12 to 16 inches long.

The tops of these laths describe in their revolution a diameter of about 6 feet. The "strite," or handful, of flax-straw is securely held at one end in the left hand, and is hung over the edge of a board, which is fixed within half an inch of the plane of rotation of the scutching-blades, so that these blades may strike the strite with great rapidity, and so remove the straw from the fibre. The strite being held in the left hand, the right hand is engaged in opening out the strite, so as to present fresh parts to the blades. It is customary to place a number of scutching-discs on the same shaft; they are placed about three feet apart. As scutching creates much dust, it is usual to box up the whole of the scutching-machine, and to remove the dust by means of an exhaust fan. One man will scutch (per day of twelve hours' effective work) from 130 lb. to 260 lb. of straw, making from 32½ lb. to 65 lb. of scutched flax.

Flax-straw breaking machines are made by Messrs. Jean and Peysson, of Lille; Messrs. J. F. Carl and Co., of Paris; and by Messrs. S. Walker and Co., of Lille.

There are no regular makers of scutching-machines, which are usually home-made.

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Consul.

Calais, 20th January, 1879.

REPORT on Flax Cultivation and Manufacture in the Department of the Nord, France, and the Imports through the Port of Dunkirk. By Vice-Consul Taylor.

1. *Rotation of Crops.*

Common rotation gives one crop of flax in seven years; the rotations of ten and eleven or fourteen years are sometimes adopted.

2. *Opinion as to the Possibility of Sending the Flax-Straw to Europe.*

The dry straw only yields from 15 to 20 per cent. of its own weight in flax for the spinning-mill, and about 6 to 12 per cent. of waste fibre, called "codilla," or "scutching flax," which is sold at a low