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A STATISTICAL REVIEW

OF

THE PRESENT STATE

OF

FLAX CULTURE

IN IRELAND.

BY

MICHAEL ANDREWS, JUN.

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Houses of the Oireachtas

It may appear superfluous in me putting forward the following observations on the subject of Flax Culture, knowing that in many of my ideas the opinion of those interested coincides. But opinions are always strengthened by bringing statistics to confirm them ; and too much can scarcely be said on a matter which is just now attracting such attention, and on which the stability—indeed almost the existence—of the Linen trade in the North of Ireland depends.

This is my apology for intruding myself on the public notice.

MICHAEL ANDREWS, JUN.

63, VICTORIA PLACE,

20th January, 1868.

FLAX CULTURE IN IRELAND.

LAST July I published a Retrospect of the Culture of Flax in Ireland, in which I alluded to the defects that pretty generally exist in the present mode adopted by the farmers in the cultivation and preparation of this most important crop. My intention now is to enter into the subject in detail, as to the present state of flax culture in Ireland, and with this object I have compiled the accompanying tables from the Government returns, which I have reduced by calculation to per-centage results, in order to exhibit at a glance the state of flax culture in each County and Province in Ireland for the year 1866, being the latest year for which the returns are complete as to acreage and approximate produce.

The subject divides itself into two heads, viz. :—Improvement and Extension. The former applies specially to Ulster, the latter to the other Provinces.

In Ulster, flax has become a staple article of extensive production, and considering that it yields nearly 92 per cent. of the entire quantity grown in Ireland, the importance of maintaining and fostering this great source of supply cannot be overrated. In 1866 the approximate quantity of flax produced in Ireland was 6,558,600 stones of 14lbs. each, of which

Ulster contributed	6,023,294	Stones, or	91.84	per Cent.
Munster	118,648	„	1.81	„
Leinster	229,753	„	3.50	„
Connaught	186,905	„	2.85	„
			—————	
			100.00	

During the years 1865, 6, and 7, the area devoted to flax in Ulster has decreased 43,652 acres from what it was in 1864, which is a heavy falling off; had it been compensated for by an increase in the South and West, it might have been less serious, but there was also a falling-off in Munster, Leinster, and Connaught, during the same period, of 4,936 acres.

The year 1867, however, presents one hopeful feature, and which should be encouraging to the Extension Association. While Ulster shows

a decrease of 10,865 acres, there is a small balance of increase in the other Provinces of 463 acres, as the following statement of the comparative acreage of 1866 and 1867 will clearly show :—

				Acres.
Ulster,	1866,	245,356
„	1867,	234,491
				<hr/>
DECREASE IN 1867,				10,865
				Acres.
Leinster,	1866,	...	7,262	
„	1867,	...	8,050	
				<hr/>
INCREASE IN 1867,				788
Connaught,	1866,	...	6,719	
„	1867,	...	7,314	
				<hr/>
INCREASE IN 1867,				595
				<hr/>
				1,383
Munster,	1866,	...	4,170	
„	1867,	...	3,250	
				<hr/>
Deduct DECREASE in 1867,				920
				<hr/>
Balance of INCREASE,				463
				<hr/>
Total DECREASE in Ireland in 1867,				10,402

The tables that are annexed explain themselves, and give a clear view of the relative acreage of flax which was cultivated and approximate quantity produced in Ireland in the year 1866, and to which I shall have occasion to refer.

It is quite apparent that the produce per acre is too low to admit of the farmer growing flax at a moderate price, and till an increased yield per acre is obtained, and a superior quality produced, the cultivation of flax in Ireland will not receive any decided stimulus. This, in conjunction with Extension in the South and West, should be the aim of the Association. Improvement and Extension should go hand-in-hand. Supply from increase of acreage, without increase of yield per acre, will not permanently reduce the cost. The virgin soil (as to flax) in the South and West of Ireland will produce a larger yield, provided the farmers are instructed how to manage the crop. I do not intend to enter at length into how

this is to be done. It depends on selection and tilling of the land, sowing, weeding, pulling, retting, grassing, and, finally, scutching. On all these points I have compiled instructions, with care and minuteness, which I have the testimony of several farming friends would enable, if followed, the uninitiated to grow flax with every prospect of success. I would have published it, but did not consider it possessed such special merit over other lucid and carefully drawn-up directions already in print; I may, however, print and circulate it at some future time, as I can confidently assert it is all the result of personal observation and supervision of the various interesting processes that the flax crop is subjected to ere it is in a condition to pass from the grower's hands to the scutch-mill. I must, however, confess experience has taught me that no lesson will instruct like growing the crop, and, I may add, I derived more knowledge by talking to successful and intelligent farmers than from all the printed directions I have ever seen.

Flax-growing is like every other enterprise; its prosecution depends on the remuneration it renders those engaged in it. Farmers will not grow flax unless it *pays them better than other crops*, as it is more costly, troublesome, and precarious; consequently, in the event of a failure it is disastrous.

Let me state what would be the effect of a culture that would raise the produce per acre. The average produce for all Ireland, for sixteen years ending 1865, was 32 stones per statute acre. I could take the smaller average of the last five years, and make my case stronger, but I wish to take a moderate view of the subject. For the sake of argument, let me assume it will take 10s per stone to remunerate the farmer, but that flax at this price is too costly to the spinner. Adopt a system of culture that would increase this average by 5 stones per acre at no additional cost to the grower, probably at a less cost, the consequence would be, as 10s paid at the low average, the grower would now be in a condition to part with his flax at a reduction of 15 per cent., without diminishing his profit, and even this increased average of 37 stones should be very much within the maximum. I myself have grown 48 stones per statute acre; I know where 54 stones were produced, and I have heard of larger yields. If my reasoning is correct, it is obvious the true and sound basis on which to rely for cheaper flax and a steady supply, is to increase the production per acre, and sustain the profits of the farmer—in other words, make the interests of the spinner and farmer identical.

Improvement is what is wanted in Ulster. Extension and instruction is what should be promoted in the South and West. In Ulster, if the acreage of farmers who grow flax could be separated from those who never touch it, I am confident it would go far to prove that the

reduced produce per acre is to be attributed to other causes than that popular idea of Ulster being "flaxed-out." Flax is also said to be an unusually exhaustive crop ; no doubt, it has thrown a large breadth of land in Ulster into poverty, not because it extracts more nourishment from the soil than cereals, but because, through want of skill and judgment, flax-growing has been carried on injudiciously, and too greedy a desire after its supposed gains has unduly stimulated its culture, and curtailed, to a great degree, the cultivation of those crops that return some of their substance to the land. Flax returns less than any other crop to the soil ; indeed, it gives back nothing, except when rippled, and the advantage of rippling with dear labour is doubtful.

Much has been said to the detriment of scutch-mills, causing unnecessary waste, and not cleaning properly. No doubt, some of them are defective, but many do the work well. I am inclined to place more of the blame on the grower ; well-handled flax will turn out favourably at the mill when care is used. I have no doubt the present machinery is open to improvement, and in many mills very defective ; but fewer complaints would be heard if the flax was properly retted and grassed. I sent a quantity of flax to a scutch-mill which did not stand in very high repute, and the reason I did so was it was the only one in my neighbourhood that would scutch my flax "off-hand." I paid the usual charge of 1s. per stone, and was told afterwards that the scutchers earned at the rate of 5s. per day on my flax. I never had so little tow, and the price I sold it at in October, 1866, was 12s. 6d. per stone, which proves the work, although done with great rapidity, was done well.

The success of the Extension of flax-growing in the South and West of Ireland depends very much on the facility that can be placed at the disposal of the farmers for getting their flax scutched. Referring to the third column of table No. 1, the small proportional acreage in flax in each County of Munster, Leinster, and Connaught, would make it difficult to give sufficient facility for scutching by permanent mills. Take, for example, the County Clare, with 1,082 acres of flax, which probably is dotted here and there over a surface of 827,994 acres ; or take Louth, the largest grower outside Ulster, having 2,704 acres in flax to an area of 201,722 acres. How can the growers so situated all be conveniently accommodated by fixed Scutch Mills ? It would also be most desirable to spread the culture as much as possible over the counties, and not have it concentrated in localities. Portable Scutching Machines, to supplement fixed mills, would remedy this difficulty, and I see no reason why they should not be made as practicable as machines for thrashing grain, which, I need scarcely say, travel from farm to farm. The two exam-

ples which I have chosen show a larger acreage under flax than the majority of the Southern and Western Counties, as will be seen on reference to the table, and of course the adoption of travelling machines, if they can be constructed to suit the purpose, would apply more strongly to those counties where the proportional acreage is less ; in fact, fixed Scutch Mills in many counties would render little service to the growers ; of course, when the acreage under flax expands the circumstances of the case would be altered.

A careful examination of the tables will show the vast field that exists in which to extend the cultivation of flax. Referring to the summary of table No. 1, it will be seen that the per centage of acreage under flax to acreage under crop, is in

Ulster,	=	13.04
Munster,	=	.32
Leinster,	=	.45
Connaught,	=	.93

Or, to use more popular language, to every 100 acres cultivated in each Province—

Ulster	has fully 13 acres in flax,
Munster	has less than $\frac{1}{3}$ of an acre in flax,
Leinster	„ $\frac{1}{2}$ „ „
Connaught	„ 1 acre.

Also, in Ulster, where the arable area amounts to 1,881,135 acres, 91.84 per cent. of the entire yield of Ireland is produced. Munster, with 1,315,760 acres, yields only 1.81 per cent. Leinster, with 1,598,987 acres, 3.50 per cent., and Connaught with 724,686 acres, 2.85 per cent. This requires no comment. The acreage under flax in all Ireland to acreage under crop, is about $4\frac{3}{4}$ per cent., which probably would produce sufficient flax for present requirements if more equally distributed over its surface. At present it is almost concentrated in one Province, where not only the acreage but the yield per acre is yearly diminishing.

Referring to the last column of table No. 2, King's County is at the top of the list as to yield per acre, while our local County (Antrim) figures at the bottom, and although Leinster, Munster, and Connaught stand higher as to yield than Ulster, they are very much below what an improved culture would make them.

Although the returns as to produce of necessity can only be an approximate, still I am inclined to assume they are not far from the truth, and more reliable as to flax than any other article of farm produce ; for this reason, none is consumed on the farmer's premises—all goes to market—every farmer knows to a stone his production of flax, and those who are

called upon by the Government Officer for returns on which the average is based, can give the quantity as regards their crop of flax with accuracy.

Farmers are proverbially wedded to old ways, and difficult to move in the direction of improvement, but this should not discourage a strenuous endeavour to bring them to a sense of their deficiency, and to instil into them the benefits that would result from a more careful and skilful style of husbandry. It would take long, if it could ever be effected, to make an Irish peasant as proficient in agriculture as a Belgian farmer. The case is not, however, hopeless, and the Extension Association which has now been inaugurated has, I trust, a fruitful field of usefulness before it, and, as years pass on, may be instrumental in conferring a lasting benefit on a large number of their fellow-countrymen. Flax culture on improved principles cannot fail to effect improvement, also, as regards the other products of their farms. I speak now specially of those known as "small farmers." The many excellent agricultural societies existing in Ireland operate more directly on farmers of a totally different class, who have extensive farms, and, from education and position, are gifted with more intelligence.

Get the landlords cordially to co-operate in the enterprise, persuade the farmer it is for his advantage to grow flax, show him the prospects of superior profit attending it, and with a careful culture a good yield may be obtained, which, on an average of years, will prove the best paying crop on his farm, the result will be an inestimable benefit, not only to himself, but to the staple manufacture of Ireland.

A great industry has been built up in the North of Ireland. Its strides of progress have been almost unparalleled. I do not wish to indulge in gloomy forebodings, but its maintenance depends on the supply and cost of one article of raw material. Ireland yields a large proportion of this supply and of a very suitable description, but, under the altered circumstances of the linen trade, supply will be of no avail unless of improved quality, and at *diminished* cost.

Table showing per-centage of acreage in crop to total acreage; also per-centage of acreage under flax to acreage under crop; gross produce of flax and produce of flax per acre in each County in Ireland, for the year 1866.

Provinces.	County.	Total acreage in each county.	Acreage under crop in each county.	Acreage under flax in each county.	Produce of flax, in stones, in each county.	Per-centage of acreage under crop to total acreage.	Per-centage of acreage under flax to acreage under crop.	Produce of flax per acre in stones.	
								Stones.	Lbs.
ULSTER.	Donegal,	1,193,443	233,496	25,849	623,457	19.56	11.57	24	2
	Tyrone,	806,296	270,665	37,888	1,029,200	33.57	14.00	27	2
	Antrim,	761,803	253,711	27,879	591,768	33.30	10.99	21	3
	Down,	612,495	334,179	51,762	1,235,932	54.56	15.49	23	12
	Londonderry, ...	522,350	197,196	30,388	685,061	37.75	15.41	22	8
	Cavan,	477,360	158,937	13,557	398,621	33.30	8.53	29	5
	Fermanagh,	457,287	105,595	7,225	230,553	23.09	6.84	31	13
	Armagh,	328,076	176,602	27,245	611,501	53.85	15.42	22	6
	Monaghan,	319,757	150,754	23,563	617,201	47.12	15.63	26	2
			5,478,867	1,881,135	245,356	6,023,294			
MUNSTER.	Cork,	1,849,683	463,712	1,496	45,546	25.07	0.34	30	6
	Kerry,	1,185,917	145,415	772	19,637	12.26	0.53	25	5
	Tipperary,	1,061,731	279,948	428	13,487	26.37	0.15	31	7
	Clare,	827,994	144,766	1,082	26,934	17.48	0.75	24	13
	Limerick,	681,112	177,713	239	8,619	26.09	0.13	36	1
	Waterford,	461,553	104,206	153	4,425	22.58	0.15	28	13
		6,067,990	1,315,760	4,170	118,648				
LEINSTER.	Meath,	580,083	178,199	1,050	30,384	30.72	0.59	28	13
	Wexford,	576,588	240,106	379	12,180	41.64	0.16	32	2
	Kilkenny,	509,732	173,902	184	5,432	34.12	0.11	29	7
	Wicklow,	500,178	118,944	7	249	23.78	0.00	35	8
	King's Co.,	493,985	124,663	691	25,405	25.24	0.55	36	10
	Westmeath,	453,468	115,177	342	10,971	25.40	0.30	32	1
	Queen's Co.,	424,854	145,789	674	23,477	34.32	0.46	34	12
	Kildare,	418,436	132,264	21	509	31.61	0.02	24	3
	Longford,	269,409	80,046	1,150	37,725	29.71	1.44	32	11
	Dublin,	226,414	97,543	12	414	43.08	0.01	34	7
	Carlow,	221,342	83,925	48	1,033	37.91	0.06	21	7
	Louth,	201,722	108,429	2,704	81,974	53.75	2.50	30	4
		4,876,211	1,598,987	7,262	229,753				
CONNAUGHT.	Galway,	1,566,354	226,339	996	22,223	14.45	0.44	22	4
	Mayo,	1,363,882	185,251	1,876	49,441	13.58	1.01	26	5
	Roscommon,	607,691	132,487	1,172	33,854	21.80	0.88	28	12
	Sligo,	461,753	96,079	856	24,090	20.81	0.89	28	2
	Leitrim,	392,363	84,530	1,819	57,297	21.54	2.15	31	7
		4,392,043	724,686	6,719	186,905				
SUMMARY.									
ULSTER,	5,478,867	1,881,135	245,356	6,023,294	34.33	13.04	24	8	
MUNSTER,	6,067,990	1,315,760	4,170	118,648	21.68	0.32	28	6	
LEINSTER,	4,876,211	1,598,987	7,262	229,753	32.79	0.45	31	9	
CONNAUGHT,	4,392,043	724,686	6,719	186,905	16.50	0.93	27	11	
Total of Ireland,	20,815,111	5,520,568	263,507	6,558,600	26.52	4.77	24	12	

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NO. II.

Table showing percentage results and produce per acre, taken from No. 1 table, beginning at the highest, for each County and Province in Ireland.

Per-centage of acreage under Crop to total acreage.		Per-centage of acreage under Flax to acreage under Crop.		Produce per acre in Stones and Lbs.	
					s. lbs.
Down,	54.56	Monaghan,	15.63	King's Co.	36 10
Armagh,	53.85	Down,	15.49	Limerick,	36 1
Louth,	53.75	Armagh,	15.42	Wicklow,	35 8
Monaghan,	47.12	Londonderry	15.41	Queen's Co.	34 12
Dublin,	43.08	Tyrone,	14.00	Dublin,	34 7
Wexford,	41.64	Donegal,	11.57	Longford,	32 11
Carlow,	37.91	Antrim,	10.99	Wexford,	32 2
Londonderry	37.75	Cavan,	8.53	Westmeath,	32 1
Queen's Co.	34.32	Fermanagh,	6.84	Fermanagh,	31 13
Kilkenny,	34.12	Louth,	2.50	Tipperary,	31 7
Tyrone,	33.57	Leitrim,	2.15	Leitrim,	31 7
Antrim,	33.80	Longford,	1.44	Cork,	30 6
Cavan,	33.30	Mayo,	1.01	Louth,	30 4
Kildare,	31.61	Sligo,	.89	Kilkenny,	29 7
Meath,	30.72	Roscommon,	.88	Cavan,	29 5
Longford,	29.71	Clare,	.75	Meath,	28 13
Tipperary,	26.37	Meath,	.59	Waterford,	28 13
Limerick,	26.09	King's Co.	.55	Roscommon,	28 12
Westmeath,	25.40	Kerry,	.53	Sligo,	28 2
King's Co.	25.24	Queen's Co.	.46	Tyrone,	27 2
Cork,	25.07	Galway,	.44	Mayo,	26 5
Wicklow,	23.78	Cork,	.34	Monaghan,	26 2
Fermanagh,	23.09	Westmeath,	.30	Kerry,	25 5
Waterford,	22.58	Wexford,	.16	Clare,	24 13
Roscommon,	21.80	Tipperary,	.15	Kildare,	24 3
Leitrim,	21.54	Waterford,	.15	Donegal,	24 2
Sligo,	20.81	Limerick,	.13	Down,	23 12
Donegal,	19.56	Kilkenny,	.11	Londonderry	22 8
Clare,	17.48	Carlow,	.06	Armagh,	22 6
Galway,	14.45	Kildare,	.02	Galway,	22 4
Mayo,	13.58	Dublin,	.01	Carlow,	21 7
Kerry,	12.26	Wicklow,	.00	Antrim,	21 3
P R O V I N C E S .					
Ulster,	34.33	Ulster,	13.04	Leinster,	31 9
Leinster,	32.79	Connaught,	.93	Munster,	28 6
Munster,	21.68	Leinster,	.45	Connaught,	27 11
Connaught,	16.50	Munster,	.32	Ulster,	24 8
Ireland,	26.52		4.77		24 12

Product per acre taken
highest for each County

County	Product per acre taken	Product per acre taken	Product per acre taken	Product per acre taken
Adair	20	20	20	20
Alfalfa	21	21	21	21
Anderson	22	22	22	22
Antelope	23	23	23	23
Apache	24	24	24	24
Beckham	25	25	25	25
Bethune	26	26	26	26
Blaine	27	27	27	27
Boone	28	28	28	28
Box Elder	29	29	29	29
Boyd	30	30	30	30
Butcher	31	31	31	31
Butte	32	32	32	32
Carbonate	33	33	33	33
Castro	34	34	34	34
Cherokee	35	35	35	35
Chickasaw	36	36	36	36
Chilton	37	37	37	37
Cibola	38	38	38	38
Cimarron	39	39	39	39
Coffey	40	40	40	40
Comanche	41	41	41	41
Concho	42	42	42	42
Cottonwood	43	43	43	43
Crawford	44	44	44	44
Crockett	45	45	45	45
Crosby	46	46	46	46
DeWitt	47	47	47	47
Deuel	48	48	48	48
Dodge	49	49	49	49
Dolan	50	50	50	50
Douglas	51	51	51	51
Dundy	52	52	52	52
Edwards	53	53	53	53
Ellis	54	54	54	54
Emery	55	55	55	55
Fisher	56	56	56	56
Franklin	57	57	57	57
Fremont	58	58	58	58
Frost	59	59	59	59
Garden	60	60	60	60
Garfield	61	61	61	61
Grant	62	62	62	62
Greene	63	63	63	63
Harney	64	64	64	64
Haskell	65	65	65	65
Haskell	66	66	66	66
Haskell	67	67	67	67
Haskell	68	68	68	68
Haskell	69	69	69	69
Haskell	70	70	70	70
Haskell	71	71	71	71
Haskell	72	72	72	72
Haskell	73	73	73	73
Haskell	74	74	74	74
Haskell	75	75	75	75
Haskell	76	76	76	76
Haskell	77	77	77	77
Haskell	78	78	78	78
Haskell	79	79	79	79
Haskell	80	80	80	80
Haskell	81	81	81	81
Haskell	82	82	82	82
Haskell	83	83	83	83
Haskell	84	84	84	84
Haskell	85	85	85	85
Haskell	86	86	86	86
Haskell	87	87	87	87
Haskell	88	88	88	88
Haskell	89	89	89	89
Haskell	90	90	90	90

PROVINCES

Province	Product per acre taken	Product per acre taken	Product per acre taken	Product per acre taken
Adair	20	20	20	20
Alfalfa	21	21	21	21
Anderson	22	22	22	22
Antelope	23	23	23	23
Apache	24	24	24	24
Beckham	25	25	25	25
Bethune	26	26	26	26
Blaine	27	27	27	27
Boone	28	28	28	28
Box Elder	29	29	29	29
Boyd	30	30	30	30
Butcher	31	31	31	31
Butte	32	32	32	32
Carbonate	33	33	33	33
Castro	34	34	34	34
Cherokee	35	35	35	35
Chickasaw	36	36	36	36
Chilton	37	37	37	37
Cibola	38	38	38	38
Cimarron	39	39	39	39
Coffey	40	40	40	40
Comanche	41	41	41	41
Concho	42	42	42	42
Cottonwood	43	43	43	43
Crawford	44	44	44	44
Crockett	45	45	45	45
Crosby	46	46	46	46
DeWitt	47	47	47	47
Deuel	48	48	48	48
Dodge	49	49	49	49
Dolan	50	50	50	50
Douglas	51	51	51	51
Dundy	52	52	52	52
Edwards	53	53	53	53
Ellis	54	54	54	54
Emery	55	55	55	55
Fisher	56	56	56	56
Franklin	57	57	57	57
Fremont	58	58	58	58
Frost	59	59	59	59
Garden	60	60	60	60
Garfield	61	61	61	61
Grant	62	62	62	62
Greene	63	63	63	63
Harney	64	64	64	64
Haskell	65	65	65	65
Haskell	66	66	66	66
Haskell	67	67	67	67
Haskell	68	68	68	68
Haskell	69	69	69	69
Haskell	70	70	70	70
Haskell	71	71	71	71
Haskell	72	72	72	72
Haskell	73	73	73	73
Haskell	74	74	74	74
Haskell	75	75	75	75
Haskell	76	76	76	76
Haskell	77	77	77	77
Haskell	78	78	78	78
Haskell	79	79	79	79
Haskell	80	80	80	80
Haskell	81	81	81	81
Haskell	82	82	82	82
Haskell	83	83	83	83
Haskell	84	84	84	84
Haskell	85	85	85	85
Haskell	86	86	86	86
Haskell	87	87	87	87
Haskell	88	88	88	88
Haskell	89	89	89	89
Haskell	90	90	90	90

Houses of the Oireachtas