

Juneau

Hemp Field Experiments

1924

Variety Trials

Six varieties were used. The Ferramington was triplicated; the Kymington and Chington were duplicated; the Arlington, simple leaf, and Techigi were not repeated.

The soil in the field varied gradually from north to south. The north end was poor, the south end fairly fertile. This variation was taken into consideration in computing the yields.

The plots were 1/5 acre in area; all plots were planted on May 22nd - later than usual, but the season was very backward.

All plots were harvested when in the full bloom stage. Plots 1, 5, 6, 10, matured fully two weeks earlier than the others, consequently were harvested two weeks earlier. As a result they benefitted by better retting conditions.

Yields of the several plots are given in the following table, calculated on the acre basis.

Hemp Variety Trials - Juneau, 1924.

Plot:	Variety	Percent:	Acre Yields			Quality of Fiber
		Tons	#Line:	#Tow:	#Total Fiber:	
1	Ferramington	61	280	470	750	Dark; soft; fine; fair strength.
2	Kymington	60	390	570	950	Light and streaked; fair strength; harsh.
3	Chington	58	620	850	1470	Light; coarse; Ex. strength; harsh.
4	Arlington	58	350	500	850	Reddish and streaked; fair strength; slightly harsh.
5	Simple Leaf	63	285	475	760	Uneven in strength and color; soft; fine.
6	Ferramington	59	245	345	590	Dark but streaked; fair strength; soft.
7	Tochigi	45	415	335	750	Med. dark; streaked, rather harsh; strong.
8	Kymington	56	225	335	600	Light and uniform, strong, med. soft.
9	Chington	57	470	620	1090	Uniformly light; weak, harsh, coarse.
10	Ferramington	53	345	395	740	Excellent color and texture; strong.

Comments - The high percentage of tow in all plots was caused by short hemp. The soil was not favorable to good growth.

The Kymington gave the lowest yield of the late maturing varieties. Results another season might, however, be decidedly different. The Ferramington gave uniformly low yields, but the quality of the fiber was excellent and on good soil, good yields could be expected.

The Chington was outstanding in yield in both plots. The quality was not good, and plot 9 produced the poorest fiber of any plot. Since retting conditions were not favorable for

late harvested plots, too much stress should not be placed on comparative quality.

The simple leaf was comparable to the Ferramington, but the quality was not as good, and the fiber was very short.

The Tochigi did not yield so very well and the fiber was somewhat harsh, yet the fiber was distinctly attractive. It was very strong.

The Arlington gave a fair yield, but the fiber had a noticeable reddish tinge. The strength was fair.

Juneau

Hemp Field Experiments

1924

Time of Cutting Trials

Three plots were used; no duplicates. Each plot was .2 acres in area. All plots were spread when harvested. Plot 1 was at the edge of field, on poorer soil, growth was distinctly inferior to plot 3. Plot 2 was on poorer soil than plot 3. Growth was noticeably poorer than plot 3. For fair comparison as to yields, it seemed best to consider the variations in soil conditions, consequently the plots were valued as: No. 3 at 100, No. 2, at 90, No. 1 at 75.

Calculated on the above basis, the following results were obtained.

Time of Cutting - Juneau, 1924.

Plot	Time Harvested	Plot Yield			Acre Yield			Quality of fiber.
		#Line	#Tow	#Total Fiber	#Line	#Tow	#Total Fiber	
1*	Aug. 24	65	119	184	325	595	920	Dark, soft, weak, fine.
2	Sept. 4	188	164	352	940	820	1760	Light, medium harsh, str. coarse
3	Sept. 15	151	204	355	755	1020	1775	Light, harsh, strong, coarse

*All plots were seeded on May 20, 1924.

Comments - Plot 1 was harvested when only a few blossoms had appeared; plot 2 in late blossom stage, and plot 3 when some seeds were formed. The season ^{was} backward, and maturity was considerably delayed over normal seasons.

The stage at which plot 1 was harvested appears to be too early for satisfactory results. The yield of fiber was appreciably lower, and the fiber was decidedly weak. In color and texture the fiber from plot 1 was superior, but this cannot be attributed to time of cutting alone, for retting conditions were much more favorable in the early part of the season. It became very dry after the other plots were cut, and retting was greatly delayed, and was not satisfactory at time of lifting.

So far as this preliminary trial is concerned, it appears that the stage of harvesting for plot 2 gave most satisfactory results. The fiber from this plot was not of

good color or texture, but it was strong and the yield was good.

The late stage, at which plot 3 was cut, is apparently not as satisfactory as that cut 10 days earlier. The fiber from this plot was very harsh and light in color.

Madison

Hemp Field Experiments

1924

Time of Harvesting

Five different stages of cutting were used. Plots were run in duplicates. Plot 1 was unfavorably located, the soil was inferior and an unsatisfactory stand of hemp was obtained. For comparative calculations, this plot was considered as being 75% of normal. All other plots were reasonably comparable.

The soil area chosen for this trial proved to be too rich in available nitrogen to produce good quality of fiber. In addition, the stand of plants obtained was too thin for best results. Retting conditions were not favorable, so that the straw was left too long, and when taken up was not well colored. As a result a large percentage of tow was obtained. The total yield of fiber, however, was very good. (The Ferramington variety was seeded).

Plots 1 to 4 were spread for retting just as soon as harvested. Plots 6 to 9 were first shocked and then spread at the same time that plots 5 and 10 were harvested. Plots 5 and 10 were spread when harvested. Details are given in the following table.

Time of Harvesting Hemp - Madison - 1924

Plot	Date Harvested	Date Spread	Plot Yields			Acre Yields			Quality
			#Line	#Tow	#Total Fiber	#Line	#Tow	#Tot. Fi.	of fiber
1	July 24	July 24	6	24	30	240	960	1200	Dark, streaked soft, weak.
2	Aug. 7	Aug. 7	6	28	34	240	1120	1360	Dark, streaked soft, weak.
3	Aug. 21	Aug. 21	6	26	32	240	1040	1280	Dark, good color soft, strong.
4	Sep. 3	Sep. 3	8	30	38	320	1200	1520	Streaked, fair, strength, soft.
5	Sep. 19	Sep. 19	4	33	37	160	1480	1640	Streaked, harsh, weak.
6	July 24	Sep. 19	7	25	32	280	1280	1560	Streaked, soft, weak.
7	Aug. 7	Sep. 19	6	30	36	240	1200	1440	Streaked, soft, weak.
8	Aug. 21	Sep. 19	6	28	34	240	1120	1360	Streaked, soft med. strength
9	Sep. 3	Sep. 19	6	28	34	240	1120	1360	Streaked, harsh weak, coarse.
10	Sep. 19	Sep. 19	4	35	39	160	1400	1560	Streaked, harsh weak, coarse.

Comments - Very little information resulted from these experiments. The plants were coarse, uneven, very succulent. There was much twisting and tangling. The over fertile soil, rather poor seed, and unfavorable weather for retting, prevented obtaining results of value.

The only positive indications were that hemp harvested before any blossoms appear, produces decidedly weak fiber. There is a possible indication also, that hemp harvested early and shecked, then spread after it has thoroughly cured, shows less fiber weakness. The plots harvested on September 19th - the last ones cut - produced consistently higher yields of total fiber, but the percentage of ~~tons~~^{the} was also consistently low.

The better quality of the Ferramington should be partially attributed to earlier harvest. This gave better retting weather, and permitted early lifting. After the late maturing varieties were harvested, weather for retting was unfavorable.