



Colorado State Flower Growers Association

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MULCHING STUDIES ON CARNATIONS 1949 - 50 By W. D. Holley

Eight mulching materials were used on the carnation varieties, Pink Patrician and Donna Lee, during the 1949-50 cropping season. No mulch was applied to one plot in the series of nine to check the value of mulching. The nine treatments were repeated three times in a randomized arrangement, making 27 plots in all.

Three rows of each variety were planted across each plot to accomplish a split-plot design. In this way the production is more easily kept separate, and one variety serves as a check upon the other.

Plants were benched June 18 and the cut began in late October. The last cut included in the records is for June 15, 1950. The mulches were applied to a thickness of approximately one inch three weeks after benching except for corn cobs and beet pulp. These were applied in early October.

Mulches used were Michigan peat, mixed hay, leaf-mold, straw, well-rotted manure, sugar beet pulp, finely ground corn cobs and pine shavings.

All blooms, except splits, were cleaned of side shoots and weighed individually. The weights do not correspond exactly with commercial grades now in use, but they are an excellent indicator of quality. Almost without exception, the heavier the bloom, the more quality there is to it. Cutting and cleaning was done as uniformly as possible.

The percentage of splits on all carnations grown at Colorado A & M this past season was unusually high. We believe a great part of this was due to the erratic temperatures we were forced to run during October and November. Except for a few instances, the mulching materials had little, or no influence, on splitting.

The effect of these mulches upon the quality of the production is shown in the accompanying table. For ease of analysis, the weights are in ten-gram groupings. The percentage of the total cut in each weight group is the best indicator of the effect of the mulching treatment upon quality. Figures given are totals for the three replications of each treatment.

THE EFFECT OF MULCHES ON QUALITY

Mulch Used	Splits	10-19 Grams		20-29 Grams		30-39 Grams		40 Grams & up		Total cut	% of cut Weighing 30 grams and over	
		% of Total	% of Total	% of Total	% of Total	% of Total	% of Total					
<u>DARK PINK PATRICIAN</u>												
Peat	100	17.69	24	4.24	154	27.25	177	31.33	110	19.47	565	50.8
Hay	124	22.34	16	2.88	135	24.32	183	32.97	97	17.47	555	50.44
Leaf Mold	164	28.13	18	3.09	109	18.69	199	34.13	93	15.95	583	50.08
Straw	124	22.66	25	4.57	138	25.23	188	34.37	72	13.16	547	47.53
Manure No Mulch	133	23.21	13	2.27	135	23.56	191	33.33	101	17.63	573	50.96
Beet Pulp	166	29.75	22	3.94	141	25.26	159	28.49	70	12.54	558	41.03
Corn Cobs	116	20.71	25	4.46	157	28.04	178	31.78	84	15.00	560	46.78
Shavings	157	30.43	31	6.01	119	23.06	154	29.84	55	10.66	516	40.50
	176	31.15	20	3.54	124	21.95	168	29.73	77	13.63	565	43.36
<u>DONNA LEE</u>												
Peat	120	19.61	143	23.36	241	39.38	99	16.17	9	1.47	612	57.02
Hay	125	21.40	116	19.86	238	40.75	101	17.29	4	0.68	584	58.72
Leaf Mold	147	26.92	111	20.33	205	37.54	82	15.02	1	0.18	546	52.74
Straw	140	25.00	143	25.54	222	39.64	54	9.64	1	0.18	560	49.46
Manure No Mulch	165	29.46	113	20.17	209	37.32	70	12.50	3	0.54	560	50.36
Beet Pulp	121	21.76	165	29.67	198	35.61	71	12.76	1	0.18	556	48.55
Corn Cobs	71	11.66	191	31.36	247	40.56	99	16.26	1	0.16	609	56.98
Shavings	161	28.05	159	27.70	209	36.41	44	7.66	1	0.17	574	44.24
	169	28.03	174	28.85	185	30.68	72	11.94	3	0.49	603	43.11