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February 4, 1991

Dr. David G. Holm, Superintendent
Agricultural Experiment Station
Colorado State University
San Luis Valley Research Center
0249 East Road 9 North
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Dear Dave:

Attached, please find the results for the 1990 potato processing committee storage study.

If you have questions on any of the data, please do not hesitate to contact me.

Sincerely,

Joseph A. Maga, Ph.D.
Professor

JAM:il

Enclosure

**1990 RAW PRODUCT STORAGE SURVEY
PERCENT SOLIDS (DRY MATTER)**

Storage Temp. (°F) Sample/Cultivar	0		2		4		6		8		12	
	40	45	40	45	40	45	40	45	40	45	40	45
P1 C. Russet	20.3	20.5	19.1	20.9	20.2	21.7	21.0	19.5	22.3	21.3	22.3	22.3
P2 C. Russet	21.8	18.1	21.0	20.8	19.7	20.9	20.4	18.9	22.3	20.7	20.6	20.6
P3 C. Russet	23.9	21.5	20.5	20.7	22.0	18.6	21.8	18.4	23.3	20.6	20.7	20.7
P4 C. Russet	21.2	19.7	18.3	22.1	21.1	19.0	21.1	18.4	22.0	21.3	21.1	21.1
P5 C. Russet	19.8	21.3	20.8	19.4	18.5	19.0	21.0	21.7	20.6	20.3	20.2	20.2
P11 R. Burbank	18.3	21.3	21.4	22.7	19.8	21.1	18.4	22.7	25.5	21.3	21.7	21.7
P12 R. Burbank	21.0	19.9	21.4	21.2	16.9	20.8	21.0	15.8	22.3	19.6	21.6	21.6
P13 R. Burbank	21.5	20.7	18.3	19.8	20.4	20.3	20.4	21.6	21.6	20.8	20.8	20.8
P14 R. Burbank	21.6	22.9	20.5	22.2	21.6	21.1	24.1	22.8	24.1	23.5	21.5	21.5
P15 R. Burbank	23.4	23.2	22.2	19.9	19.9	19.5	19.0	20.7	22.7	21.7	18.1	18.1
P21 R. Norkotah	18.7	19.7	19.7	18.1	18.1	20.3	20.7	20.6	22.4	18.7	22.1	22.1
P22 R. Norkotah	20.7	19.1	20.1	20.5	19.9	19.0	22.4	20.1	18.0	20.6	18.2	18.2
P23 R. Norkotah	19.8	19.2	17.2	18.6	18.5	20.1	19.9	22.1	23.5	19.5	21.9	21.9
P24 R. Norkotah	20.7	18.9	21.4	17.5	18.5	18.9	20.2	20.5	18.5	21.9	17.8	17.8
P25 R. Norkotah	18.5	18.3	19.2	18.3	18.9	20.3	19.5	18.5	18.8	18.8	17.8	17.8
P31 R. Nugget	24.2	27.5	24.0	23.9	23.0	22.3	27.6	26.0	24.8	24.4	24.4	24.4
P32 R. Nugget	19.4	19.7	20.7	20.2	21.2	22.1	22.7	20.4	20.8	21.1	20.6	20.6
P33 R. Nugget	25.3	24.3	23.8	27.4	23.7	23.8	21.7	24.5	25.2	25.1	24.3	24.3
P34 R. Nugget	26.6	22.8	19.9	21.9	28.1	22.7	24.5	25.8	26.6	24.7	22.5	22.5
P35 R. Nugget	20.6	23.1	21.6	22.1	21.5	21.7	22.4	23.8	21.7	23.9	24.7	24.7
Averages:												
C. Russet	21.4	20.2	19.9	20.8	20.3	19.8	21.1	19.4	22.1	20.8	21.0	21.0
R. Burbank	21.2	21.5	20.8	21.2	19.7	20.6	20.6	20.7	23.2	21.4	20.7	20.7
R. Norkotah	19.7	19.0	19.5	18.6	18.8	19.7	20.5	20.4	20.2	19.9	19.6	19.6
R. Nugget	23.4	23.5	22.0	23.1	23.5	22.5	23.8	24.1	23.8	23.8	23.8	23.3

1990 RAW PRODUCT STORAGE SURVEY
TOTAL SUGARS (% FWB)

Storage Temp. (°F) Sample/Cultivar	0		2		4		6		8		12	
	40	45	40	45	40	45	40	45	40	45	40	45
P1 C. Russet	1.33	1.35	1.33	1.37	1.35	1.37	1.42	1.37	1.45	1.40	1.46	1.42
P2 C. Russet	1.31	1.31	1.32	1.33	1.33	1.36	1.35	1.36	1.37	1.37	1.40	1.39
P3 C. Russet	1.30	1.29	1.31	1.32	1.32	1.34	1.37	1.34	1.39	1.35	1.42	1.40
P4 C. Russet	1.33	1.35	1.33	1.37	1.35	1.40	1.39	1.39	1.43	1.43	1.45	1.43
P5 C. Russet	1.27	1.31	1.25	1.33	1.30	1.37	1.37	1.35	1.41	1.40	1.44	1.45
P11 R. Burbank	1.25	1.27	1.25	1.30	1.27	1.33	1.33	1.30	1.35	1.30	1.37	1.34
P12 R. Burbank	1.24	1.25	1.25	1.28	1.25	1.32	1.32	1.27	1.33	1.30	1.35	1.32
P13 R. Burbank	1.28	1.30	1.30	1.34	1.31	1.35	1.31	1.31	1.42	1.34	1.42	1.36
P14 R. Burbank	1.30	1.32	1.30	1.34	1.31	1.37	1.37	1.34	1.39	1.35	1.41	1.36
P15 R. Burbank	1.27	1.29	1.30	1.32	1.30	1.35	1.35	1.32	1.39	1.34	1.39	1.37
P21 R. Norkotah	1.42	1.45	1.42	1.47	1.44	1.48	1.48	1.45	1.52	1.47	1.55	1.50
P22 R. Norkotah	1.40	1.41	1.41	1.44	1.43	1.44	1.44	1.44	1.47	1.45	1.51	1.46
P23 R. Norkotah	1.37	1.39	1.37	1.42	1.40	1.44	1.44	1.41	1.45	1.43	1.49	1.45
P24 R. Norkotah	1.35	1.37	1.35	1.39	1.37	1.40	1.40	1.37	1.42	1.40	1.45	1.41
P25 R. Norkotah	1.39	1.42	1.40	1.43	1.40	1.45	1.42	1.42	1.49	1.45	1.53	1.48
P31 R. Nugget	1.35	1.34	1.35	1.37	1.35	1.42	1.42	1.37	1.45	1.40	1.48	1.42
P32 R. Nugget	1.30	1.32	1.32	1.35	1.32	1.42	1.42	1.34	1.44	1.37	1.45	1.39
P33 R. Nugget	1.33	1.36	1.34	1.37	1.35	1.42	1.42	1.36	1.42	1.37	1.46	1.38
P34 R. Nugget	1.35	1.39	1.35	1.39	1.37	1.44	1.44	1.39	1.45	1.40	1.49	1.41
P35 R. Nugget	1.34	1.35	1.36	1.39	1.36	1.42	1.42	1.39	1.44	1.40	1.45	1.41
Averages:												
C. Russet	1.31	1.32	1.31	1.34	1.33	1.37	1.37	1.36	1.41	1.39	1.43	1.42
R. Burbank	1.27	1.29	1.28	1.32	1.29	1.34	1.34	1.31	1.38	1.33	1.39	1.35
R. Norkotah	1.39	1.41	1.39	1.43	1.41	1.44	1.44	1.42	1.47	1.44	1.51	1.46
R. Nugget	1.33	1.35	1.34	1.37	1.35	1.42	1.42	1.37	1.44	1.39	1.47	1.40

**1990 RAW PRODUCT STORAGE SURVEY
SUCROSE (MG/G FWB)**

Storage Temp. (°F) Sample/Cultivar	Weeks of Storage:											
	0		2		4		6		8		12	
	40	45	40	45	40	45	40	45	40	45	40	45
P1 C. Russet	9.3	9.2	9.0	8.7	8.6	8.5	8.2	8.0	7.7	7.3	7.1	7.1
P2 C. Russet	9.2	8.9	9.0	8.5	8.5	8.1	8.2	7.5	7.5	7.0	6.9	6.9
P3 C. Russet	9.1	8.8	8.9	8.4	8.4	8.2	8.0	7.6	7.4	7.1	7.0	7.0
P4 C. Russet	9.3	9.2	9.0	8.7	8.6	8.4	8.3	7.9	7.8	7.3	7.1	7.1
P5 C. Russet	8.9	8.9	8.5	8.5	8.3	8.2	8.1	7.8	7.7	7.2	7.3	7.3
P11 R. Burbank	8.8	8.6	8.5	8.3	8.1	8.0	7.8	7.4	7.2	6.9	6.7	6.7
P12 R. Burbank	8.7	8.5	8.5	8.2	8.0	7.9	7.6	7.3	7.2	6.8	6.6	6.6
P13 R. Burbank	9.0	8.8	8.8	8.5	8.4	8.1	7.9	7.8	7.4	7.1	6.8	6.8
P14 R. Burbank	9.1	9.0	8.8	8.6	8.4	8.2	8.0	7.6	7.4	7.1	6.8	6.8
P15 R. Burbank	8.9	8.7	8.8	8.4	8.3	8.1	7.9	7.6	7.3	7.0	6.8	6.8
P21 R. Norkotah	9.9	9.8	9.6	9.4	9.2	8.9	8.7	8.4	8.1	7.8	7.5	7.5
P22 R. Norkotah	9.8	9.6	9.6	9.2	9.1	8.6	8.6	8.1	8.0	7.6	7.3	7.3
P23 R. Norkotah	9.6	9.4	9.3	9.1	8.9	8.6	8.4	8.0	7.8	7.5	7.2	7.2
P24 R. Norkotah	9.5	9.3	9.2	8.9	8.7	8.4	8.2	7.8	7.7	7.3	7.0	7.0
P25 R. Norkotah	9.7	9.6	9.5	9.1	8.9	8.37	8.5	8.2	8.0	7.7	7.4	7.4
P31 R. Nugget	9.5	9.1	8.2	8.7	8.6	8.5	8.2	8.0	7.7	7.4	7.1	7.1
P32 R. Nugget	9.1	8.9	8.9	8.6	8.4	8.5	8.0	7.9	7.5	7.3	6.9	6.9
P33 R. Nugget	9.3	9.2	9.1	8.7	8.6	8.5	8.1	7.8	7.5	7.3	6.9	6.9
P34 R. Nugget	9.5	9.4	9.2	8.9	8.7	8.6	8.3	8.0	7.7	7.5	7.0	7.0
P35 R. Nugget	9.4	9.2	9.2	8.9	8.7	8.5	8.3	7.9	7.7	7.3	7.0	7.0
Averages:												
C. Russet	9.2	9.0	8.9	8.6	8.5	8.3	8.2	7.8	7.6	7.2	7.1	7.1
R. Burbank	8.9	8.7	8.7	8.4	8.2	8.1	7.8	7.5	7.3	7.0	6.7	6.7
R. Norkotah	9.7	9.5	9.4	9.1	9.0	8.6	8.5	8.1	7.9	7.6	7.3	7.3
R. Nugget	9.4	9.2	9.1	8.8	8.6	8.5	8.2	7.9	7.6	7.4	7.0	7.0

**1990 RAW PRODUCT STORAGE SURVEY
GLUCOSE (MG/G FWB)**

Storage Temp. (°F) Sample/Cultivar	0		2		4		6		8		12	
	40	45	40	45	40	45	40	45	40	45	40	45
P1 C. Russet	2.7	3.0	2.9	3.4	3.4	4.1	4.3	4.1	5.1	4.9	5.8	5.7
P2 C. Russet	2.6	2.9	2.9	3.3	3.3	4.1	4.1	4.1	4.8	4.8	5.6	5.6
P3 C. Russet	2.6	2.8	2.8	3.3	3.3	4.2	4.2	4.1	4.9	4.7	5.7	5.6
P4 C. Russet	2.7	3.0	2.9	3.4	3.4	4.3	4.3	4.3	5.0	5.0	5.8	5.7
P5 C. Russet	2.5	2.9	2.7	3.3	3.3	4.2	4.2	4.2	4.9	4.9	5.8	5.8
P11 R. Burbank	2.5	2.8	2.7	3.3	3.2	4.1	4.1	3.9	4.7	4.6	5.5	5.4
P12 R. Burbank	2.5	2.7	2.7	3.2	3.1	4.0	4.0	3.8	4.7	4.6	5.4	5.3
P13 R. Burbank	2.6	2.9	2.8	3.4	3.3	4.1	4.1	3.9	5.0	4.7	5.7	5.4
P14 R. Burbank	2.6	2.9	2.8	3.4	3.4	4.1	4.1	4.0	4.9	4.7	5.6	5.4
P15 R. Burbank	2.5	2.8	2.8	3.3	3.3	4.1	4.1	4.0	4.9	4.7	5.6	5.5
P21 R. Norkotah	2.8	3.2	3.1	3.7	3.6	4.4	4.4	4.3	5.3	5.1	6.2	6.0
P22 R. Norkotah	2.8	3.1	3.1	3.6	3.6	4.3	4.3	4.3	5.1	5.1	6.0	5.8
P23 R. Norkotah	2.7	3.1	3.0	3.6	3.5	4.3	4.3	4.2	5.1	5.0	6.0	5.8
P24 R. Norkotah	2.7	3.0	2.9	3.5	3.4	4.2	4.2	4.1	5.0	4.9	5.8	5.6
P25 R. Norkotah	2.8	3.1	3.0	3.6	3.5	4.4	4.4	4.3	5.2	5.1	6.1	5.9
P31 R. Nugget	2.7	2.9	3.0	3.4	3.4	4.3	4.3	4.1	5.1	4.9	5.9	5.7
P32 R. Nugget	2.6	2.9	2.9	3.4	3.3	4.3	4.3	4.0	5.0	4.8	5.8	5.6
P33 R. Nugget	2.7	3.0	2.9	3.4	3.4	4.3	4.3	4.1	5.0	4.8	5.8	5.5
P34 R. Nugget	2.7	3.0	3.0	3.5	3.4	4.3	4.3	4.2	5.0	4.9	5.8	5.6
Averages:												
C. Russet	2.6	2.9	2.8	3.3	3.3	4.2	4.2	4.2	4.9	4.8	5.7	5.7
R. Burbank	2.5	2.8	2.8	3.3	3.2	4.1	4.1	3.9	4.8	4.6	5.6	5.4
R. Norkotah	2.7	3.1	3.0	3.6	3.5	4.3	4.3	4.2	5.2	5.0	6.0	5.8
R. Nugget	2.7	3.0	2.9	3.4	3.4	4.3	4.3	4.1	5.0	4.8	5.9	5.6

