Page 28—Corn Talk, Lancaster Farming, Saturday, April 17, 1993



## (Continued from Page 26)

three hybrids yielded one bushel more, seven bushels more and 17 bushels more, respectively.

**Older Row Width Studies** Between 1974 and 1980, Pioneer agronomists conducted numerous studies comparing corn in 38-inch vs. 30-inch rows. The results of many years and locations of data add more weight to the recent findings in 20-inch vs. 30-inch rows.

1

Silage Yields Although data for corn silage in narrow rows is hard to come by, we did have a cooperator who planted three Pioneer varieties at 30-inch and 15-inch row spacings this past growing season. The 15-inch spacing was accomplished by doubling back with a 30-inch planter. Populations were targeted at 40,000 for the 15-inch spacing and 32,000 for the 30-inch spacing. Plant development was

Corn	Vields in 20- and 30-Inch	Rows
(Source: Il	linois Agronomy Handbook	1991-1992)
	20 T XXV	40 T T

Plants/A	30 Inch Width	20 Inch Width
20,000	165 Bu/A	174 Bu/A
25,000	172	188
30,000	174	187

On the average, corn in 30-inch rows yielded seven bushels per acre or five percent more than in 38-inch rows. This is almost identical to the difference between 20-inch and 30-inch rows in the 1991-1992 studies. Of 27 different environments, only one showed an advantage for 38-inch rows. Even the stress locations showed a 4.5 percent advantage for narrow rows in Pioneer testing.

**Results Of Illinois Studies** Studies were conducted by the University of Illinois at three populations - 20,000, 25,000, and 30,000 plants per acre.

According to the Illinois Agronomy Handbook, most studies have shown yield increases of five to eight percent when rows are narrowed from 30 to 30 inches.

visually identical across row spacings for the same hybrid, and forage analyses showed no significant differences.

As can be seen from the data, there was an average increase of 3.2 tons of silage for the 15-inch/40,000 population treatment versus the 30-inch/32,000 treatment. Although the plot was not set up for rigorous statistical analysis, the results are nonetheless very encouraging.

In summary, a number of studies support the yield advantage of growing corn at high populations in narrow rows, and we can expect this practice to continue in the coming years.

We still need to evaluate such factors as standability, disease and pest interactions, maturation and drydown rates, fertilization, and other relevant topics.

VARIETY 7	WIDTH	HARVEST POPULATION	MOISTURE	TONS AT 65%
3733	15"	40.000	65.4%	21.21
3733	30"	31,000	66%	19.74
			Advantage	1.47 Ton/Acre
3751	15"	40.000	55.2%	23.90
3751	30"	29,000	58.1%	18.29
			Advantage	5.61 Ton/Acre
3527	15"	39.000	70.2	21.16
3527	30"	27,000	70.6	18.58
			Advantage	2.58 Ton/Acre





<ul> <li>IH 1466 Tractor w/Cab</li> <li>IH 565 Tractor, Like New</li> <li>SKID LOADERS</li> <li>NH 775 Skid Loader</li> <li>NH 553 Skid Loader w/</li></ul>	<ul> <li>NH 320 Baier w/Thrower</li> <li>NH 325 Baier w/Thrower</li> <li>NH 325 Round Baier</li> <li>NH 40 Blower, 1000 RPM</li> <li>H 55 Blower</li> <li>NH 430 Haybine</li> <li>NH 432 Haybine</li> <li>NH 499 12 FL Hydroswing</li> <li>NH 449 Windrow Inverter,</li></ul>	NH 1033 Bale Wagon     NH 36 Fiail Chopper     NH 451 Sickle Bar Mower     (2) IH 120 Forage Boxes,     Roof, 3 Beater, 12 Ton Gear <u>SFREADERS</u> NH 512 Spreader     NH 791 Spreader, Hyd.     Endgate, Top Beater     NH 326 Spreader     NH 326 Spreader     MISC.     Haybuster 215 Rd. Bate     Chopper     Case IH 1350 Grinder/Mixer     w/Scales     NH 357 Grinder/Mixer	Case IM 5100 Grain Drill,			
Bucket, 1480 Hrs. <li>NH 0130 Backhoe</li> <li>NH 325 Skid Loader</li> <li>HAY &amp; FORAGE</li> <li>NH 1499 Haybine, 300 Hrs.,</li>	Demo <li>Vicon Wheel Rake</li> <li>NH 258 Raixe</li> <li>NH 326 Raixe</li> <li>NH 300 Harvester, Metal</li>		20x6, Press Wheels, Seeded			
Like New <li>NH 1499 Haybine, 300 Hrs.,</li>	Detector, Elec. Controls,		94 Acres     Brillion 7 Shank Chisel Plow     (2) Brillion 5 FL Wing Packer     Miller 18 FL Disc Harrow,			
Like New <li>NH 1496 Haybine, 12 Ft.</li>	Excellent Cond. <li>IH 20 Sickle Bar Mower, 3</li>		Hyd, Wing Fold     Brillion 13 FL Cultimulcher     AC 2800 Hyd. Fold Disc     White 5400 4 Row Air Planter,			
Head, Cab & Air, Diesei <li>NH 1495 Haybine</li> <li>NH 1495 Baler w/Thrower</li> <li>NH 259 Baler w/Tr Ejector</li>	Pt.		Dry Fertilizer     JD 8200 Grain Drill     Brillion 13 °C Cultipacker     Brillion 11 FL Cultipacker     Brillion 11 FL Cultipacker     Brillion 11 FL Cultipacker     MH OD100 Offset Disk     AC 18 FL Wing Disc Harrow     IH 370 Disc Harrow     HH 700 6 Bottom Auto Reset     Plow			
MESSICK FARM EQUIPMENT, INC. Rheems Exit-Rt. 283, Elizabethtown, PA. 17022 717-367-1319, 717-653-8867						

JD 15A Fieli Chopper, 60"

TILLAGE