

Southern Rocky Mountain Ag Conference

Growing and Marketing Malting Barley

Ray Pinney, Grain Mgr. Monte Vista Coop

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2006 Barley

SanLuis Valley Research Center

Center, Colorado

Irrigated

Variety	Type	F/M	2006 Yield (BPA)	2006 TW	2006 >6/64	2006 Protein	2005 Protein	2005 Yield	2 Yr Avg. Yield	Plant Lodging	Head Date (June)
Legacy	6-row	M	149.1	50.4	98	10.2	9.9	158.9	154.0	1.3	22.3
Scarlett	2-row	M	141.4	52.8	99	10.7	10.5	151.2	146.3	0	30.8
M69	2-row	M	133.4	49.9	97	10.2	9.4	157.3	145.4	0	32.5
CDC Copeland	2-row	M	137.2	50.8	98	10.0	10.5	148.0	142.6	0	29.8
AC Metcalfe	2-row	M	128.1	52.1	98	10.4	10.8	140.7	134.4	0	26
Stellar	6-row	M	137.8	48.8	96	10.0	10.2	126.5	132.2	0	22.5
Harrington	2-row	M	120.3	51.3	98	10.2	10.6	138.1	129.2	0	29.8
Tradition	6-row	M	121.5	50.4	97	10.7	11.1	135.5	128.5	0	23.3
Robust	6-row	M	123.2	50.6	96	10.6	11.3	127.6	125.4	0	22.3
CDC Kendall	2-row	M	120.9	51.3	97	10.8	10.7	126.3	123.6	0	29.8

Soil Type: Norte gravelly sandy loam

Irrigation: Center Pivot

Previous Crop: Potatoes

Herbicide: Bronate at 1.6pt/acre mostly missed plot area

Planted Date: April 17

Harvest Date: August 24

Fertilization: Nitrogen; 80#/acre dry preplant + 30 #/ac fertigation

BARLEY VARIETY DESCRIPTIONS

<u>Variety</u>	<u>Use</u>	<u>Origin</u>	<u>Release</u>	<u>Aleurone</u>			<u>Straw</u>		<u>Stem</u>	<u>Loose</u>	<u>Spot</u>	<u>Net</u>
			<u>Year</u>	<u>Awn</u>	<u>Color</u>	<u>Height</u>	<u>Strength</u>	<u>Maturity</u>	<u>Rust</u>	<u>Smut</u>	<u>Blotch</u>	<u>Blotch</u>
6-Row												
Robust	M/F	MN	1983	S	White	Med	M. Strong	Med	S	S	MR-R	MS-S
Lacey	M/F	MN	1999	S	White	Med	Strong	Med	S	S	MR-R	MS-S
Drummond	M/F	ND	2000	S	White	Med	V. Strong	Med	S	S	MR-R	MS-S
Legacy	M/F	BARI	2000	S	White	Med	Strong	Med/Late	S	S	MR-R	MS-S
Tradition	M/F	BARI	2003	S	White	Med	V. Strong	Med	S	S	MR-R	MS-S
2-Row												
Conlon	M/F	ND	1996	S	White	M. Short	Med.	Early	S	S	MS	MR-R
AC Metcalfe	M/F	CAN	1997	R	White	Mid Tall	Med	Med	S	S	MS	MR-R
CDC Copeland	M/F	CAN	1999	R	White	Tall	Med	Med	S	S	MS	MR-R
Harrington	M/F	CAN	1981	R	White	Med	Med weak	Late	S	S	S	MS-MS
Scarlett	M/F	Europe	1995	R	White	Short	Med	Early	S	S	MS	MR-R

Use: F = Feed, M = Malt

Important Malting Barley Quality Attributes

- **Protein**

- See next page.

- **Plump**

- Higher plump means more extract for brewers and better yields in the malting process.

- **Mold/Blight**

- Low amounts mean less quality problems – especially in brewing process. Can impact beer flavor.

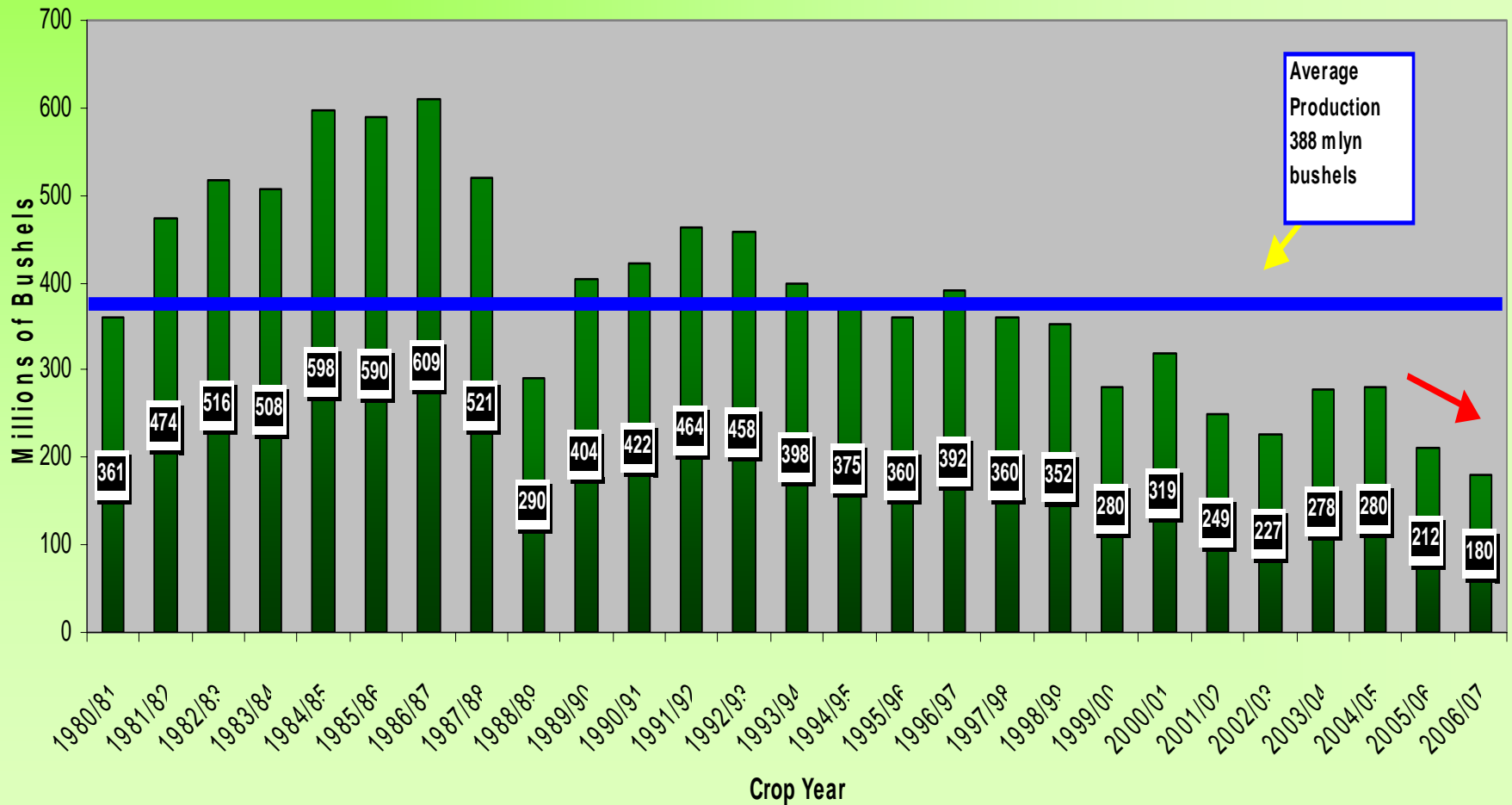
- **Germination**

- <96% means that barley doesn't grow. Means barley doesn't modify and convert to malt. Also extract issue, too.

- **Higher protein malting barley generates:**
 - Reduced levels of malt extract (less beer per bushel of malt)
 - Haze formation (clarity of beer)
 - Product stability issues (shelf-life)
 - More phenolics in the wort contributing to astringent beer flavors (bitter flavor)
 - More color development during wort boiling
 - Increased levels of Dimethyl Sulphide (DMS off-flavor) in beer.
 - Increased foam quality (good up to a point)
 - Better yeast nutrition (“food” for yeast)

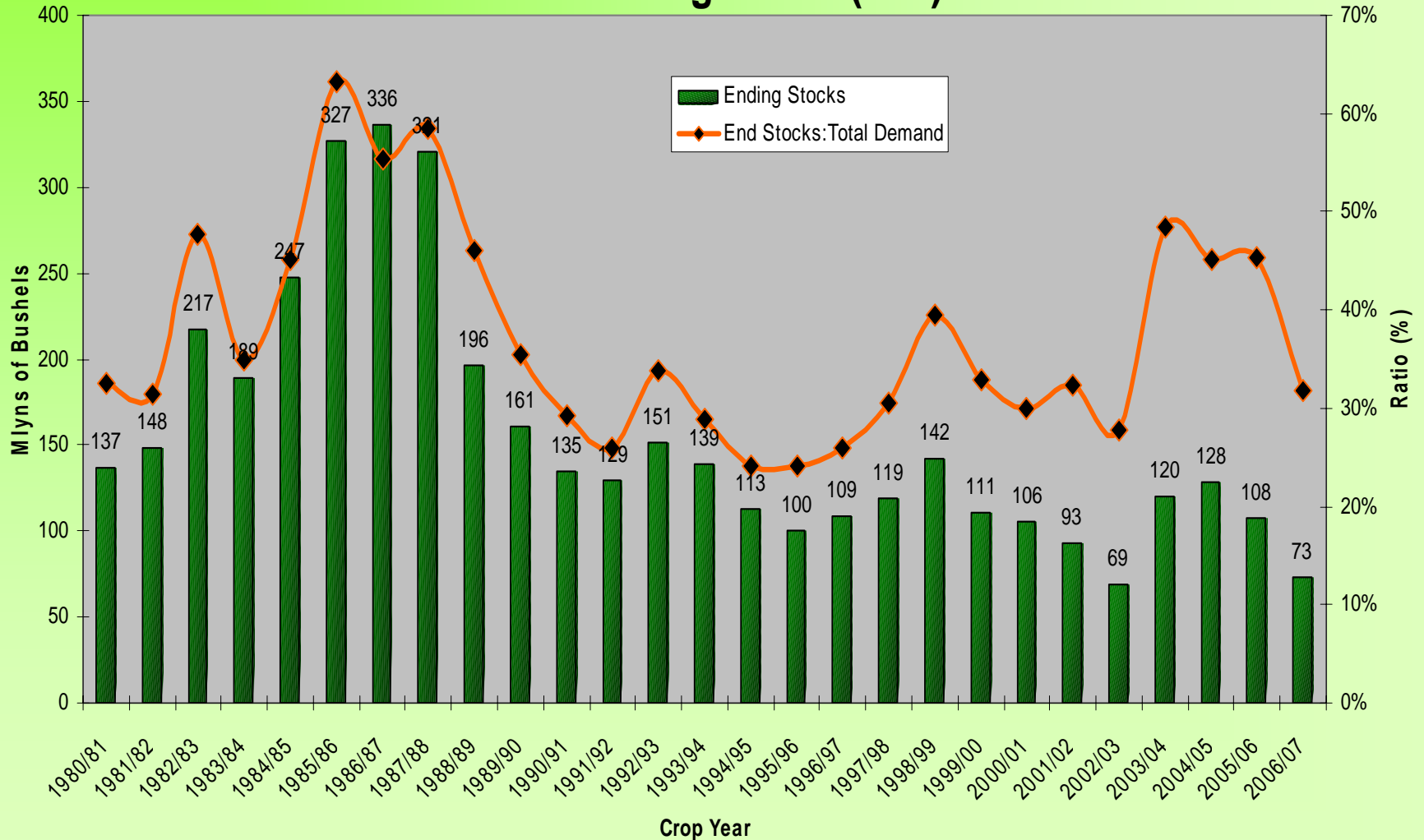
United States - Barley Production (All)

1980 through 2007 (est.)



United States -- Total Demand vs. Ending Stocks

1980 through 2007 (est.)



Smaller carryouts & lower ratio - generally mean higher prices.

World Barley Production

Local Marketing Years, Thousand Metric Tons

Country	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007 Dec	2006 2007 Jan	% of World Production
Algeria	416	1,220	1,314	400	1,450	1,450	1.0%
Australia	3,865	10,387	7,708	9,869	4,200	4,200	3.0%
Belarus	1,681	1,800	2,000	1,800	1,350	1,350	1.0%
Canada	7,489	12,328	13,186	12,481	10,000	10,000	7.2%
China, Peoples Republic of	3,322	2,717	3,222	3,400	3,500	3,500	2.5%
Ethiopia	1,200	1,410	1,575	1,785	1,800	1,800	1.3%
EU-25	56,509	54,826	61,727	52,769	54,863	54,817	39.6%
India	1,500	1,410	1,310	1,080	1,400	1,400	1.0%
Iran	3,085	2,900	2,900	2,900	2,900	2,900	2.1%
Iraq	1,000	1,150	1,250	1,250	1,250	1,250	0.9%
Kazakhstan, Republic of	2,200	2,100	1,500	1,500	1,500	1,500	1.1%
Morocco	1,669	2,620	2,760	1,102	2,500	2,500	1.8%
Russian Federation	18,700	18,000	17,200	15,80	18,500	18,100	13.1%
Turkey	7,200	6,900	7,400	7,600	7,200	7,200	5.2%
Ukraine	10,364	6,850	11,100	9,000	11,800	11,800	8.5%
United States	4,940	6,059	6,091	4,613	3,920	3,920	2.8%
Others	9,707	10,229	11,951	10,643	10,545	10,615	7.7%
World Total	134,847	142,906	154,194	137,992	138,678	138,302	

Source: USDA

