

INTRODUCTION
25TH CALIFORNIA ALFALFA SYMPOSIUM SILVER ANNIVERSARY PROGRAM
 Dan Putnam¹

"This Alfalfa Production Symposium was conceived as an effort to bring a greater understanding of the total alfalfa production scheme to the large number of people who are in daily contact with alfalfa producers" - Dr. Vern L. Marble, California Alfalfa Symposium Proceedings, Fresno, CA, December, 1971.

With this explanation, the California Alfalfa Production Symposium was launched with 18 speakers in Fresno, CA, December 7-8, 1971. Its main thrust was to increased production and profitability of a crop which at the time was produced on 1/6 of the land planted to field crops in California. One year later, the name was shortened to the **California Alfalfa Symposium**, recognizing that topics other than "production" were important to alfalfa as well. Little did Dr. Marble realize that he was to start a proud tradition which would inspire many, and last for (at least) 25 years. The California Alfalfa Symposium is widely recognized as one of the most important sources of information on alfalfa for irrigated conditions.

Much has changed since that time. In 1971, a man named Richard M. Nixon was president, California was far from being a leader in US milk production, alfalfa was produced on over 1.2 million acres and the state average alfalfa yield was 5.6 t/acre. Since that time, we have had 5 presidents, and the state average yields have risen to well over 7 tons/ acre, produced on about 20% fewer acres, and California has surpassed Wisconsin (in 1994) to become the nations' leading milk-producing state (Table 1).

Table 1. Milk yields and milk production in selected states, 1993-1995

State	Milk Yields/Cow			%Change	Milk Production			%Change
	x 1,000 lbs/cow in January				x 1 million lbs in January			
State	1993	1994	1995	3 yrs	1993	1994	1995	3 yrs.
Wisconsin	1,210	1,205	1,240	+2%	1,960	1,801	1,860	-5%
California	1,555	1,630	1,680	+8%	1,821	1,989	2,100	+15%
New York	1,290	1,215	1,340	+4%	964	952	951	-3%
22 State total	1,305	1,343	1,388	+6%	10,728	10,870	11,235	+5%

(Comparing January one-month production in each year. Source: Agricultural Statistics Board, USDA, Alfalfa Hay California Market Survey, Fed-State Market News Service. Data excludes heifers not yet fresh and excludes milk sucked by calves.)

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The 1995 Silver Anniversary Program of the California Alfalfa Symposium was conceived to highlight the historic linkage of the California alfalfa industry with the growth of the state's dairy industry. California milk production has continued to rise over the past 25 years at a rate that is far greater than most other regions. In spite of financial difficulties on many dairies in 1995, over the past three years the cow numbers have risen by about 7 percent, and production per cow has risen by about 8 percent, leading to a whopping 15% increased milk production in California, according to state and federal records (Table 1). It will be interesting to note whether this trend can continue, or whether price, feed costs, or regulatory pressures will moderate this growth significantly, topics which are addressed at this symposium.

Concurrent with the phenomenal growth of the dairy industry have been advancements in the way alfalfa is grown, harvested, and sold. The direct value of California alfalfa in 1971 was estimated to be about \$200,000,000. This has risen to over \$800,000,000 in 1994, a figure which does not include the value of related industries such as seed production, farm machinery, or services. There have been advancements in irrigation technology, alfalfa cultivars, harvesting technology, cutting strategies, weed and pest control, and many other aspects of the business. Many of these advances have been chronicled in the Proceedings of the California Alfalfa Symposium over the years. Some of the older proceedings are available at the meeting, or are available by writing to the above address. A database of abstracts and annotations of all of the Proceedings (25 years) is also under preparation and should be completed soon.

There has been some shift in where alfalfa is grown in the state. Table 2 indicates that about 48% of the state's alfalfa is currently produced in the San Joaquin Valley, and another 26% in the low and high desert regions of Southern California, primarily Imperial County. The remainder is produced in the intermountain areas (13%), Sacramento Valley (11%), and coastal areas (1%). There has been a shift of acreage away from production in the San Joaquin Valley and from coastal regions. A higher percentage of the state's acreage now is produced in Imperial Valley and the Intermountain areas than 25 years ago.

Over the past 70 years, yields have increased on the average of about 1/2 ton every 10 years, a trend which appears to be continuing today. Total yields have apparently risen over the past several years (Table 2), and are now estimated to be approximately 7.5 t/acre statewide (Table 2), although I'm sure that the problematic 1995 season will take its toll this year. In the first couple of proceedings, Dr. Marble proposed a challenge: "7.7 (tons/a) by '77!", at a time when average yields were closer to 5.7 tons/acre. He was convinced that growers were capable of those yield levels. As that decade progressed it became apparent that this goal would not be so quickly reached, and now, in 1995, we are nearly there. I think that perhaps Murphy's law is at work here: it almost always takes three times as long to accomplish something than we initially believe (at least it is true with me!). Dr. Marble attributed much of the slow growth in productivity to shifting acreage to less productive soils, a process that is still continuing. Nevertheless, yields have continued to increase steadily in California. Certainly the sharing of information at the California Alfalfa Symposium has played an important role in these yield increases over the years.

So what of the future? It is highly likely, in my view, that the full yield and feeding value of alfalfa under California's favorable climate has not yet been fully realized. Part of this is a matter of

continually remembering and practicing good management factors which are very important to yield and quality. Many of these will be addressed here, subjects such as good stand establishment and harvest management. We also hope there are some(perhaps radical) new ideas presented here which will spark the imagination of growers and lead to significant innovations: Will "big bales" or "mat harvesting" provide significant gains in harvest efficiency or feeding value? Are there new pest control or weed control strategies which will significantly improve yield or quality? These advances may take 3 times as long as we initially think to implement, but I have confidence that the alfalfa growers in California will rise to the occasion.

Speaking of the future, I should remind the readers of the upcoming National Alfalfa Symposium, which will be held in San Diego, CA, Dec 9-10, 1996 (see box below).

Many thanks to all who have contributed to this 1995 program, especially to our speakers. We are particularly grateful to the planning committee who have spent many hours in planning for this symposium. Members of the committee include: Fred Costa (Stanislaus Farm Supply), Joe Machado (America's Alfalfa), Greg Cluff (WL Research), and Mel Coelho (San Joaquin Valley Hay Growers Association). UC personnel involved with planning include: Marsha Campbell Mathews (UCCE, Stanislaus Co.), Mick Canevari (UCCE, San Joaquin Co.), Carol Frate (UCCE, Tulare Co.), Robert Kallenbach (UCCE, Riverside Co.), Rachael Long (UCCE, Yolo Co.), Shannon Mueller (UCCE, Fresno Co.), Steve Orloff (UCCE, Siskiyou Co.), Barbara Reed (UCCE, Butte Co.), Ed DePeters (UC Davis), and Larry Teuber (UC Davis). If you meet a member of the committee, let them know how you feel about this program. It was truly a cooperative effort.

MARK YOUR CALENDARS!!!!
December 9-10, 1996

1996 NATIONAL ALFALFA SYMPOSIUM

Will be held at the beautiful bayside Catamaran Hotel,
San Diego, CA
hosted by
University of California Alfalfa Workgroup
in Cooperation with the
Certified Alfalfa Seed Council

This is the first time this 26-year old symposium will be held in the West. The UC Alfalfa Workgroup is proud to jointly host this important national and regional event, which will be held in combination with the 1996 California Alfalfa Symposium. Exhibitors and contributors are welcome. For further details write to: 1996 National Alfalfa Symposium, Department of Agronomy and Range Science, University of California, Davis, CA 95616. (916-752-1703 ph./916-752-4361 fax)

Table 2. Estimate of California Alfalfa production for 1994.

County	Acreage	Yield (t/a)	Production (t)	Value (\$)
<i>Intermountain</i>				
Lassen*	32,000	4.50	144,000	13,680,000
Mono*	6,000	6.00	36,000	3,492,000
Modoc*	29,000	4.00	116,000	10,440,000
Plumas	3,800	2.84	10,792	1,068,400
Shasta	8,900	5.30	47,200	4,720,000
Sierra	600	2.48	1,488	151,800
Siskiyou*	51,640	4.70	242,708	23,057,000
Trinity	100	3.00	300	27,900
Total or Average	132,040(13.3%)	4.53	598,488	56,637,100
<i>Sacramento Valley</i>				
Amador	318	6.00	1,908	190,800
Butte*	2,488	6.80	16,918	1,819,000
Colusa	11,100	6.87	76,290	8,012,000
Glenn	19,275	7.93	152,815	12,465,000
Sacramento	7,500	7.20	54,000	4,860,000
Solano	22,818	6.78	154,706	15,315,900
Sutter	11,037	6.48	71,520	6,978,200
Tehama	4,500	5.20	23,400	2,012,500
Yolo	31,775	6.83	217,023	20,986,000
Yuba	960	7.35	7,056	670,300
Total or Average	111,771(11.3%)	6.94	775,636	73,309,700
<i>San Joaquin Valley</i>				
Alameda*	1,650	5.80	9,605	976,000
Contra Costa	3,200	6.47	20,700	2,352,000
Fresno	68,000	9.12	620,000	71,300,000
Kern	82,092	9.04	742,000	79,851,000
Kings	22,650	8.22	186,183	20,136,000
Madera	33,200	8.10	268,920	29,581,000
Merced	75,420	7.03	530,300	62,888,000
San Joaquin	70,300	7.25	510,000	57,604,000
Stanislaus	40,000	7.90	316,000	34,128,000
Tulare	83,900	8.92	748,000	81,532,000
Total or Average	480,412(48.5%)	8.23	3,951,708	440,348,000
<i>High and Low Desert Regions</i>				
Imperial (Estimate)	191,000	8.00	1,528,000	166,552,000
Los Angeles	5,565	8.34	46,394	6,690,000
Inyo*	3,600	6.00	21,600	2,095,000
Riverside*	39,549	9.20	361,873	36,444,000
San Bernardino	15,698	7.31	114,716	13,625,700
Total or Average	255,412(25.8%)	8.11	2,072,583	225,406,700
<i>Coastal Regions</i>				
Humboldt*	351	3.70	1,300	104,000
Lake*	285	5.50	1,565	160,000
Monterey	1,984	6.70	13,300	1,676,000
San Benito*	1,800	5.00	8,946	957,000
San Luis Obispo	3,800	7.20	27,360	3,584,000
Santa Barbara	2,673	7.75	20,716	2,757,900
Total or Average	10,893(1.1%)	6.72	73,187	9,238,900
1994 CA Total or Average**	990,528	7.54	7,471,602	804,940,400
1993 CA Total or Average	950,113	7.24	6,877,121	699,395,000

Source: Alfalfa Hay California Market Summary 1994. Compiled from County Agric. Commissioner Reports. Federal-State Market News Service, Sacramento, Ca.

* Data for these counties for 1994 was not available, and data from 1993 was substituted.

** Note that this figure includes some estimates from 1993 (about 17% of the acres).