



Imperial County

Agricultural Briefs



University of California
Agriculture and Natural Resources

Features from your Advisors

January 2019 (Volume 22 Issue 1)

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MEET OUR NEW YOUTH FAMILY AND COMMUNITY ADVISOR

We are pleased to announce that we have a new youth, family, and community (YFC) advisor serving the University of California Imperial County. Her name is **Yu Meng** and her responsibilities will focus on providing community development programs in the area of youth, families, and communities with major outreach to the Latino youth and families.



Yu Meng is originally from China, where she studied food science and engineering. After she graduated with a Bachelor's degree, she worked for food industries and started to notice the nutrition issues with processed foods and their effects on children's health. With that in mind, she came to the U.S. and earned Master's and PhD degrees from Utah State University (USU) and Oregon State University (OSU), respectively.

Before coming to Imperial County, she worked for a USDA funded project known as "the WAVE~Ripples for Change" in collaboration with the OSU Professionals and Extension, community partners, high school soccer coaches, and school districts, and some dedicated volunteers to prevent unhealthy weight gain among 15 to 19-year-old soccer players. Most of the youth she worked with were Latinos and from low-income families. During this time, she helped develop and test the first sports nutrition, physical activity, family and consumer sciences curriculum for active youth. Her work resulted in positive developments in reducing youth added sugar intake, maintaining fruits and vegetables intake over time, and improving the awareness of sports nutrition. Participating youth also applied additional skills they learned from gardening and cooking workshops at their homes and shared the lessons and practical applications with their respective families.

As a YFC advisor for Imperial County, Yu Meng is expected to continue to utilize her knowledge and skills for positive youth development and nutrition and improve people's quality of life for Imperial county communities. Her desired goal is to ensure the applicability of the UC Agriculture and Natural Resources initiatives with research and extension of knowledge in a way it helps better lives, and address a healthy, diverse youth, families and communities living in Imperial County and adjacent communities.

Yu Meng can be reached by calling (442)265-7700. She will soon release her e-mail and contact information.

Welcome aboard!



CALIFORNIA DEPARTMENT OF
FOOD AND AGRICULTURE

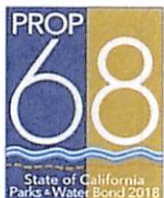
CALIFORNIA DEPARTMENT OF FOOD
AND AGRICULTURE

STATE WATER EFFICIENCY AND ENHANCEMENT PROGRAM (SWEEP)

**ACCEPTING APPLICATIONS FOR AGRICULTURAL
WATER AND ENERGY EFFICIENCY GRANTS
UP TO \$100,000 PER FARMER**

Applications will be accepted from December 28th 2018
– March 8th 2019

<https://www.cdfa.ca.gov/oefi/sweep/>



WHAT YOU NEED TO KNOW TO APPLY

Funding Available for

Water Savings:

- Weather, Soil, and/or Plant Based Sensors for irrigation
- Micro-Irrigation or Drip Systems

Energy Savings:

- Fuel Conversion (Such as Solar)
- Improved Energy Efficiency of Pumps
 - Low Pressure Systems
 - Variable Frequency Drives
 - Reduced Pumping

And Other Water and Energy Practices

Project Requirements



Project Design



Budget



Easy to Use Water and Energy
Savings Calculators

**Find FREE Technical Application Submission Assistance is
available in your area by visiting our website**

**FOR MORE DETAILS, VISIT THE SWEEP WEBSITE AT
[HTTPS://WWW.CDFA.CA.GOV/OEFI/SWEEP/](https://www.cdfa.ca.gov/OEFI/SWEEP/)**

For more information, please contact Ali Montazar. Phone #442-265-7700 or amontazar@ucanr.edu

LIVESTOCK RESEARCH BRIEF

UC
CE University of California
Agriculture and Natural Resources Cooperative Extension

1050 E. Holton Rd.
Holtville, CA, 92250
(442) 265-7700

January 8, 2019

Happy New Year!

In this January 2019 edition, a study comparing long term implants versus short term implants used on calf-fed Holstein steers is examined.

If you have any comments, questions, recommendations, or know someone who would like to be included on the mailing list, please feel free to contact me.

Best wishes,

Brooke Latack

Livestock Advisor

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EFFECT OF IMPLANT STRATEGY ON CALF-FED HOLSTEIN STEERS¹

Brooke Latack
Livestock Advisor

Introduction

Hormonal implants in Holstein steers have been shown to promote ADG, gain efficiency, HCW, and ribeye area. Implanting Holstein calves at light weights has been shown to have limited effect on overall performance, but comparative data on duration and scheduling of implants, as well as types of hormones, and the effects of these variables on performance and carcass characteristics has not been well documented. This study aimed to identify the effects of short and long duration initial implants and re-implant schedules.

Methods

240 calf-fed Holstein steers (113.5 ± 6.2 kg BW) at the UC Desert Extension and Research Center were sorted into two treatment groups (20 pens per treatment). Cattle received either two implants over 349 days (Two Implant Strategy) or three implants over 349 days (Three Implant Strategy). The timeline and type of implants are shown in Figure 1. Cattle were fed an adlib diet, with a transition from a receiving diet to a finishing diet at 112 days (Table 1). Performance and carcass data were taken to compare the two implant strategies.

Results and Implications

The Three Implant Strategy had a 9.6% greater ADG and a 7% greater feed efficiency during 112-212 d (Table 2). From 212-349 d the Three Implant Strategy had a 4% greater DMI. The Two Implant Strategy had a 3.9% greater feed efficiency during 212-349 d, reflecting greater DMI of the Three Implant Strategy group during this period. Overall, the Three Implant Strategy had greater DMI, leading to increased shrunk final weight. Gain efficiency was not affected by implant strategy. Regarding carcass characteristic, the Three Implant Strategy increased ribeye area. There were no treatment effects on dressing percentage, fat thickness, KPH fat, and estimated carcass yield.

The Three Implant Strategy resulted in greater (11 kg) final weight compared with the Two Implant Strategy. This was most notable between 250 to 350 kg body weight range, reflecting a diminishing response to the initial long-duration initial implant during that critical period.

High temperature humidity index during the final 3 months of the study was associated with decrease feed intake (a heat mitigation effect), and possibly impacting comparative responses to implant strategies.

Figure 1.
Timeline of the
two experimental
implant strategies

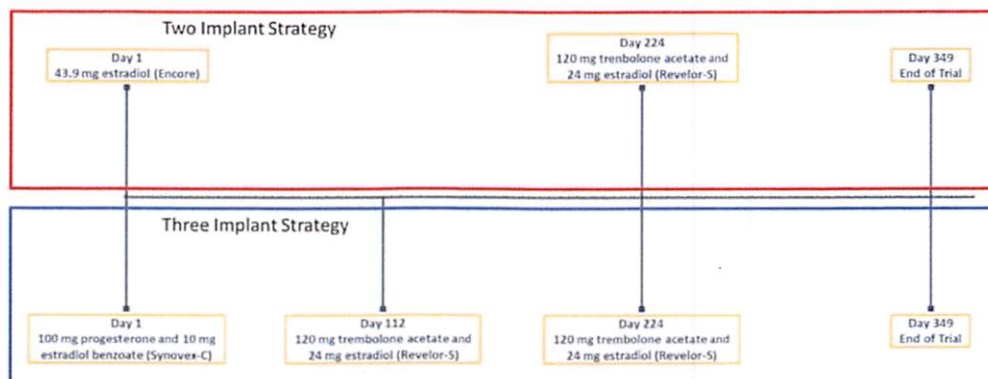


Table 1.
Experimental
diet
composition

	Ingredient Composition, % DM	
	Receiving diet (1-112 d)	Finishing diet (112-349 d)
Alfalfa hay	20.00	12.00
Steam flaked corn	64.94	75.26
Fishmeal	3.00	0
Yellow grease	3.00	3.50
Cane molasses	7.00	6.00
Limestone	0.70	1.19
Urea	0.50	1.00
TM Salt	0.40	0.40
Magnesium oxide	0.20	0.25
Dicalcium phosphate	0.26	0.40
Monensin, mg/kg	25	25

Table 2.
Growth
performance
treatment
effects

Item	Two Implant Strategy	Three Implant Strategy
Number of Animals	120	120
Weight, kg		
Initial	113.1	113.9
Final	570.2	581.0
ADG, kg		
1-112 d	1.31	1.29
112-212 d	1.35	1.48
212-349 d	1.35	1.35
1-349 d	1.34	1.37
DMI, kg/d		
1-112 d	4.87	4.81
112-212 d	7.26	7.43
212-349 d	8.81	9.17
1-349 d	7.07	7.23
ADG/DMI		
1-112 d	0.270	0.268
112-212 d	0.186	0.199
212-349 d	0.153	0.147
1-349 d	0.189	0.189

References

1 Torrentera, N. Plascencia, A., Sakinas-Chavira, J., and Zinn, R.A. Influence of implant strategy on growth performance and carcass characteristics of calf-fed Holstein steers. 2017. The Prof. An. Scientist. 33:327-333

NOTICE

Per Ole Becker, University of California (UC) Nematology Specialist and a member of the Advisors and Specialists for UC Integrated Pest Management Guidelines (PMG), there is now a new IPM pest management guideline for Onions and Garlic. It is mobile-friendly and can be accessed at <https://www2.ipm.ucanr.edu/agriculture/onion-and-garlic/>. If you any question, contact Ole Becker at obecker@ucr.edu or call him at (951) 827-2185.

IMPERIAL VALLEY CIMIS REPORT AND UC WATER MANAGEMENT RESOURCES

Ali Montazar, Irrigation & Water Mgmt Advisor, UCCE Imperial & Riverside Counties

The reference evapotranspiration (ET_0) is derived from a well-watered grass field and may be obtained from the nearest CIMIS (California Irrigation Management Information System) station. CIMIS is a program unit in the Water Use and Efficiency Branch, California Department of Water Resources that manages a network of over 145 automated weather stations in California. The network was designed to assist irrigators in managing their water resources more efficiently. CIMIS ET data are a good guideline for planning irrigations as bottom line, while crop ET may be estimated by multiplying ET_0 by a crop coefficient (K_c) which is specific for each crop.

There are three CIMIS stations in Imperial County include Calipatria (CIMIS #41), Seeley (CIMIS #68), and Meloland (CIMIS #87). Data from the CIMIS network are available at:

<http://www.cimis.water.ca.gov/>. Estimates of the average daily ET_0 for the period of January 1st to March 31st for the Imperial Valley stations are presented in Table 1. These values were calculated using the long-term data of each station.



Table 1. Estimates of average daily potential evapotranspiration (ET_0) in inch per day

Station	January		February		March	
	1-15	16-31	1-15	16-28	1-15	16-31
Calipatria	0.09	0.10	0.12	0.13	0.16	0.19
El Centro (Seeley)	0.10	0.11	0.13	0.15	0.19	0.22
Holtville (Meloland)	0.09	0.10	0.12	0.14	0.17	0.21

For more information about ET and crop coefficients, feel free to contact the UC Imperial County Cooperative Extension office (442-265-7700). You can also find the latest research-based advice and California water & drought management information/resources through link below:

<http://ciwr.ucanr.edu/>

Division of Agriculture and Natural Resources

**University of California
Division of Agriculture and Natural Resources**

2019 California Plant & Soil Conference

Dates: [View Complete Calendar](#) | [Return to UC Cooperative Extension](#) | [Agricultural Experiment Station](#)
February 5, 2019 - February 6, 2019

Time: 8:00 AM - 5:00 PM

Contact: Matthew Quinton

Sponsor: American Society of Agronomy

Event Details

**Register for the 2019 California Plant & Soil Conference
February 5 - February 6 (T-W)**

Follow the web link below to register online:

- **Link to conference registration website:** [CA-ASA 2019 registration](#)
- **Online registration is open now through February 4, 2019**
- Continuing education units (CEU's) will be offered
- Questions contact: ellison.calasa@gmail.com

Registration Fees

Please note that the student pricing listed for early registration below is available only when logging in as a student member of ASA, CSSA, or SSSA. Undergraduates can join the societies for \$22 and graduate students for \$42. Membership is strongly encouraged! Join here:

www.agronomy.org/join-renew

www.crops.org/join-renew

www.soils.org/join-renew

CA-ASA Conference Registration Fees

Early registration fees through Monday, January 29th:

- Full (both days) professional: \$195
- Full (both days) student: \$20
- First day only (Feb. 5th) professional: \$115

- Second day only (Feb. 6th) professional: \$80
- First or second day only student: \$20

Late (after January 29) and walk-in registration fees:

- Full (both days) professional: \$220
- Full (both days) student: \$20
- First day only (Feb. 5th) professional: \$130
- Second day only (Feb. 6th) professional: \$90
- First or second day only student: \$20

Lunch is provided to all registrants both days of the conference.

Refund Policy

For persons who pre-registered for the conference but cannot attend due to extenuating circumstances, a refund of pre-registration fees may be requested. Refunds can be requested prior to the first day of the conference. No refunds will be issued for requests received after the conference has begun. All requests will be reviewed by the governing board and should be made by email to the current CA-ASA Board President, Dan Munk, at dsmunk@ucanr.edu. Please do not attempt to contact the National American Society of Agronomy that manages the registration website since they do not handle requests for refunds.

Notice to students and student poster presenters:

Students presenting a poster will receive complimentary registration and are not required to register for the conference on line. A name badge will be provided at the registration desk the day of the conference and is valid both days.

Students attending as part of a class assignment but not including lunch are not required to register on-line, but must obtain a name badge at the registration desk.

Webmaster Email: jewamert@ucanr.edu

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(Complete nondiscrimination policy statement can be found at <http://ucanr.org/sites/anrstaff/files/107734.doc>)*

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University of California, Davis, Agriculture and Natural Resources, One Shields Avenue, Davis, CA 95616, (530) 752-1397.*