Valor Económico de los Programas de Manejo Reproductivo.

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Cooprinsem 2013 Jornada Técnica 13-17 Mayo

Preñez vs. Dinero

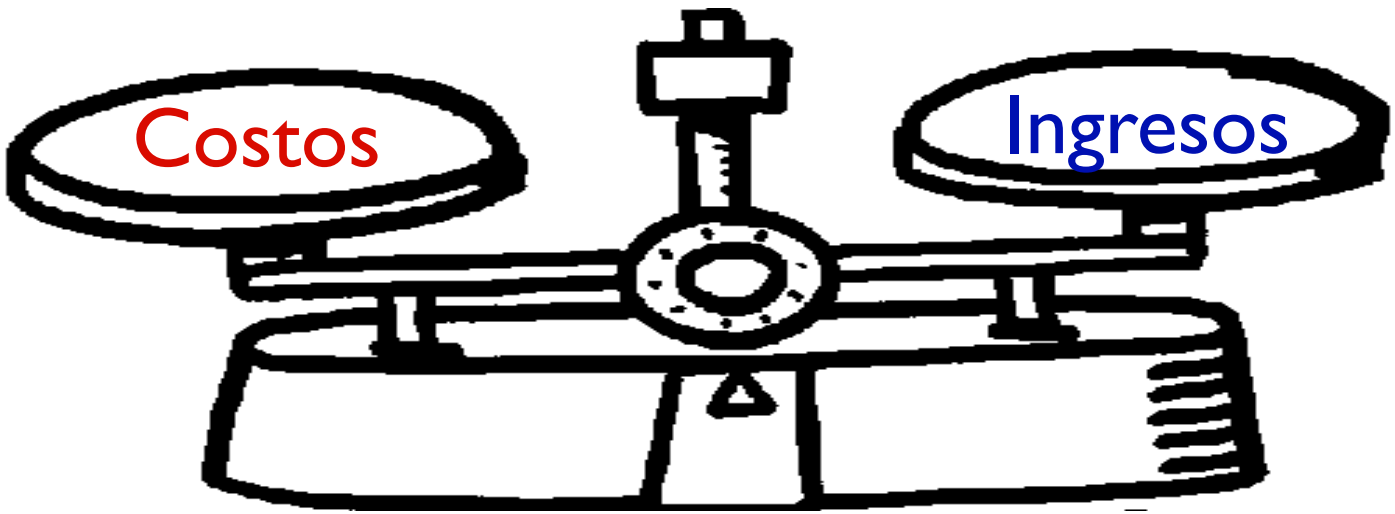
Trabajo

Semen

Hormonas

Leche

Terneros



Objetivo

- Desarrollar una ***Herramienta de Apoyo para la Toma de Decisiones*** para evaluar el ***Valor Económico*** de los ***Programas de Manejo Reproductivo*** en un predio lechero.

Sistema de Toma de Decisiones

Realice sus propios cálculos

Valor vaca es predio específico
Cada predio es diferente




Condiciones prediales cambian dinámicamente
Valor vaca y ingreso neto por vaca cambian

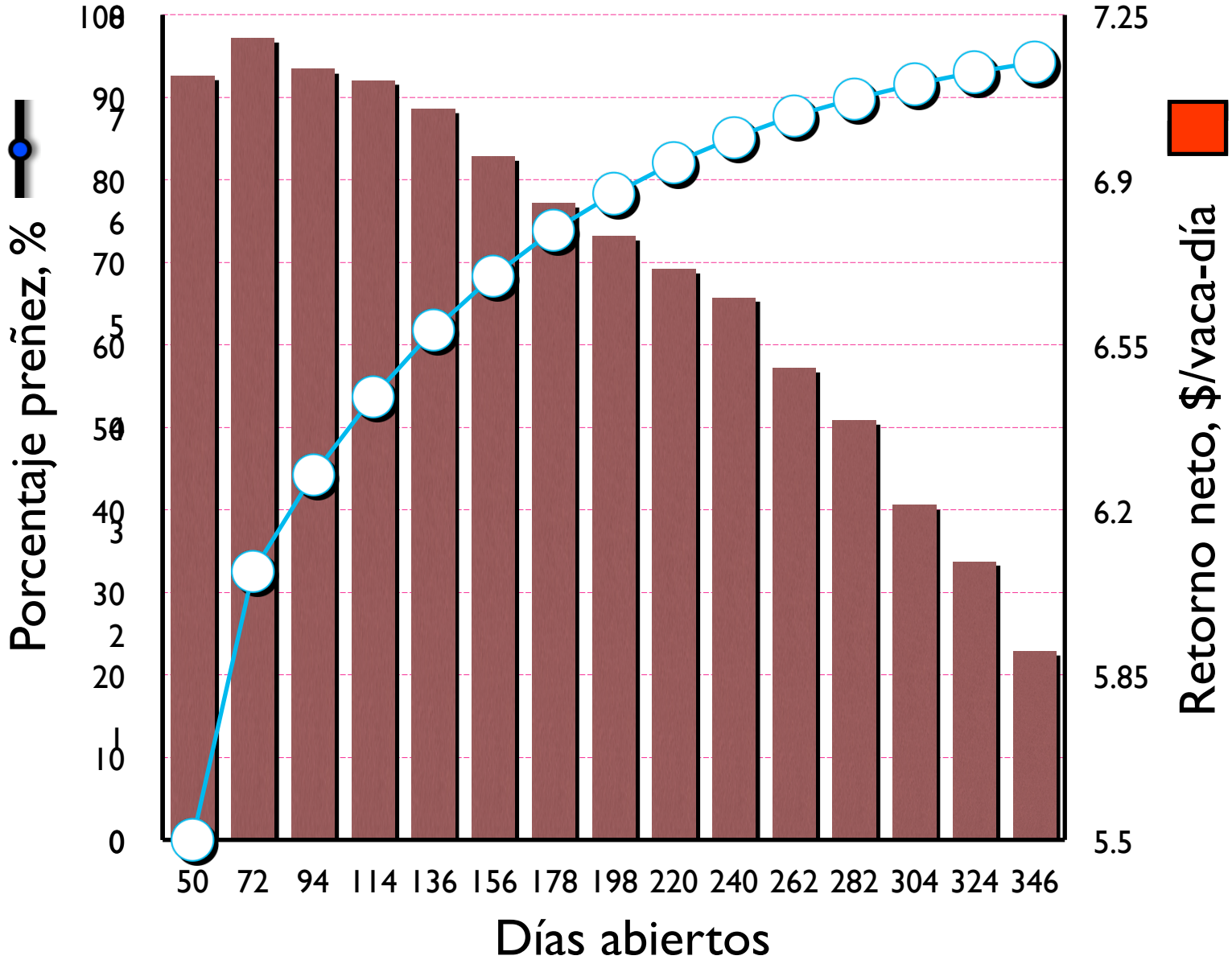
Condiciones de mercado cambian permanentemente
Impactan las decisiones

Aplicación amigable con el usuario
Fácil de usar, sólida

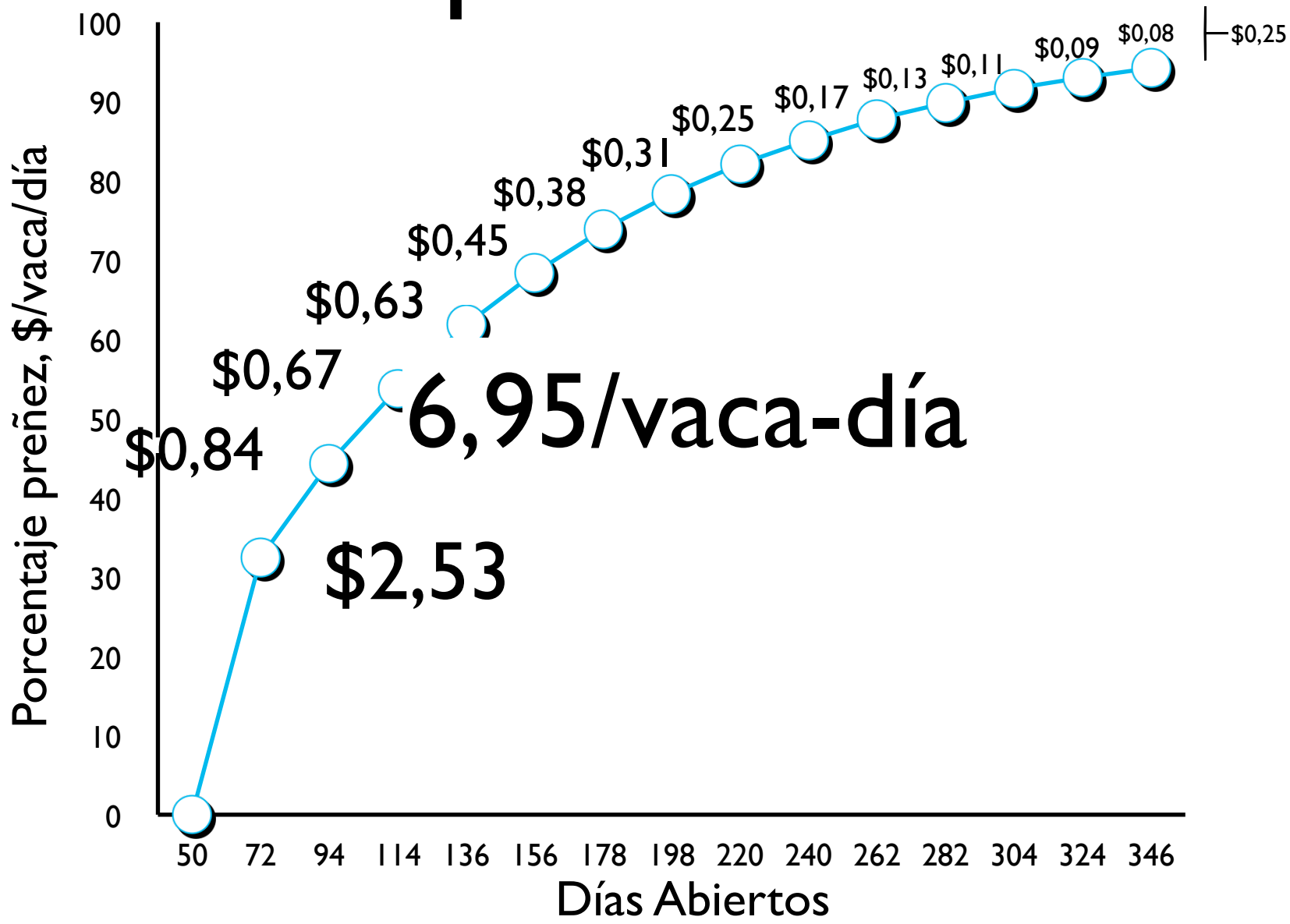
Valor Monetario Esperado (VME)

- Diferencia de valor entre las ***entradas de efectivo*** y las ***salidas de efectivo*** para diferentes ***estrategias de manejo reproductivo.***

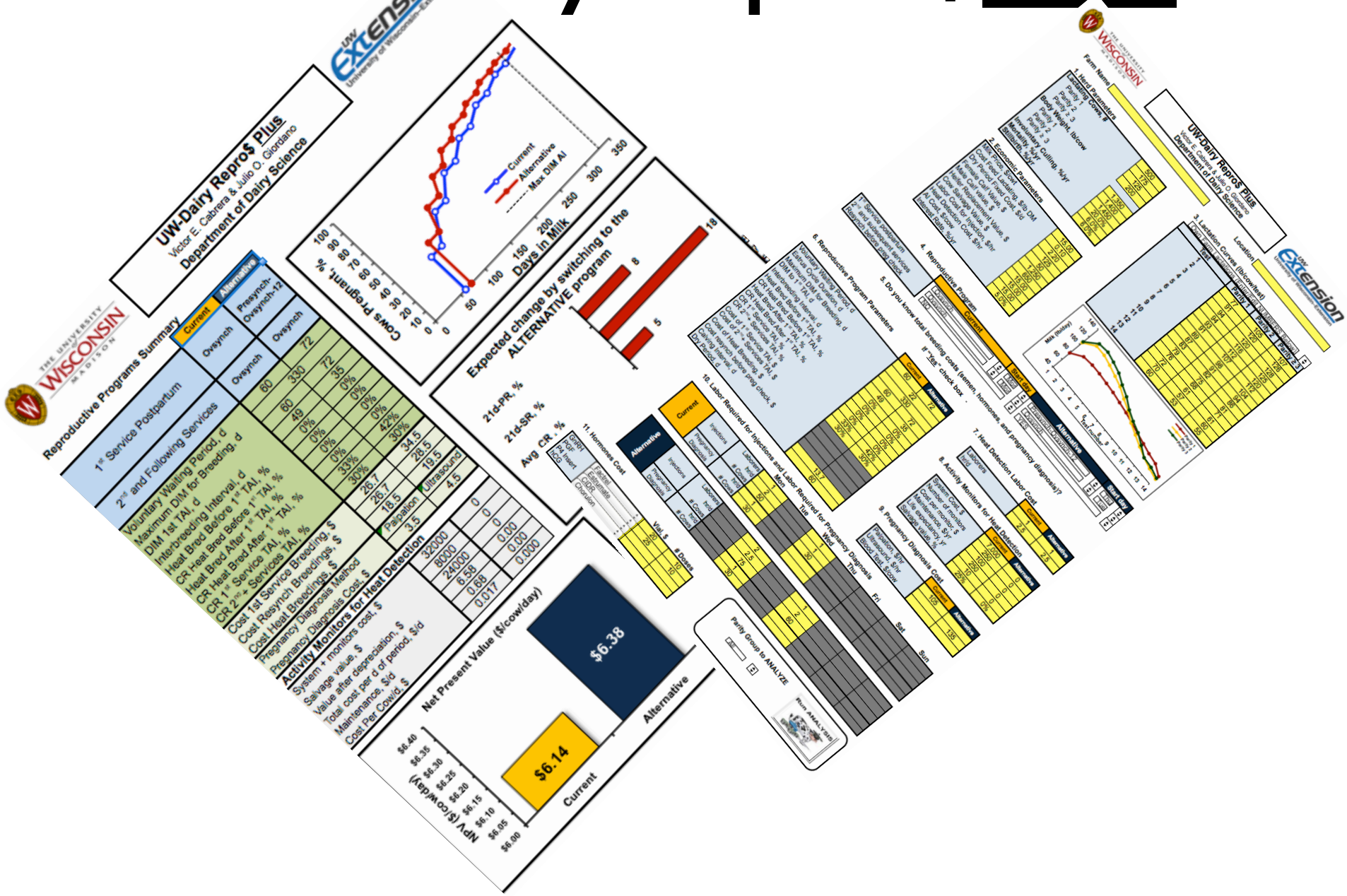
Reproducción vs. Utilidad



Valorización de un Programa Reproductivo



UW-DairyRepro$Plus



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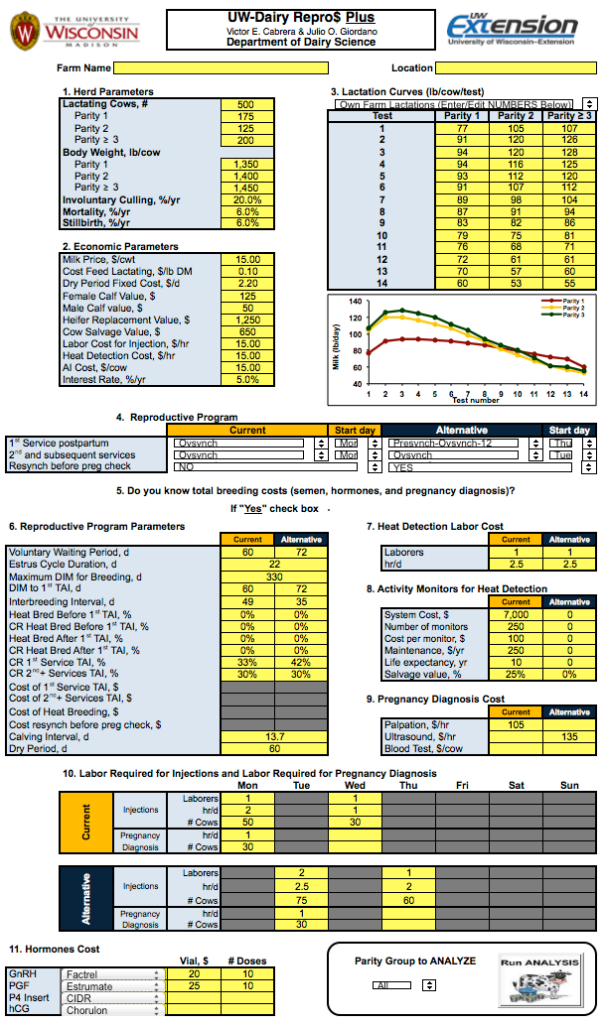

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Department of Dairy Science

Farm Name | Location

1. Herd Parameters

Lactating Cows, #	500
Parity 1	175
Parity 2	125
Parity ≥ 3	200
Body Weight, lb/cow	
Parity 1	1,350
Parity 2	1,400
Parity ≥ 3	1,450
Involuntary Culling, %/yr	20.0%
Mortality, %/yr	6.0%
Stillbirth, %/yr	6.0%

2. Economic Parameters

Milk Price, $/cwt	15.00
Cost Feed Lactating, $/lb DM	0.10
Dry Period Fixed Cost, $/d	2.20
Female Calf Value, $	125
Male Calf value, $	50
Heifer Replacement Value, $	1,250
Cow Salvage Value, $	650
Labor Cost for Injection, $/hr	15.00
Heat Detection Cost, $/hr	15.00
AI Cost, $/cow	15.00
Interest Rate, %/yr	5.0%

3. Lactation Curves (lb/cow/test)

Own Farm Lactations (Enter/Edit NUMBERS Below)

Test	Parity 1	Parity 2	Parity ≥ 3
1	77	105	107
2	91	120	126
3	94	120	128
4	94	116	125
5	93	112	120
6	91	107	112
7	89	98	104
8	87	91	94
9	83	82	86
10	79	75	81
11	76	68	71
12	72	61	61
13	70	57	60
14	60	53	55

4. Reproductive Program

	Current	Start day	Alternative	Start day
1st Service postpartum	Ovsynch	Mon	Presynch-Ovsynch-12	Thu
2nd and subsequent services	Ovsynch	Mon	Ovsynch	Tue
Resynch before preg check	NO		YES	

5. Do you know total breeding costs (semen, hormones, and pregnancy diagnosis)?
If "Yes" check box

6. Reproductive Program Parameters

	Current	Alternative
Voluntary Waiting Period, d	60	72
Estrus Cycle Duration, d	22	
Maximum DIM for Breeding, d	330	
DIM to 1st TAI, d	60	72
Interbreeding Interval, d	49	35
Heat Bred Before 1st TAI, %	0%	0%
CR Heat Bred Before 1st TAI, %	0%	0%
Heat Bred After 1st TAI, %	0%	0%
CR Heat Bred After 1st TAI, %	0%	0%
CR 1st Service TAI, %	33%	42%
CR 2nd+ Services TAI, %	30%	30%
Cost of 1st Service TAI, $		
Cost of 2nd+ Services TAI, $		
Cost of Heat Breeding, $		
Cost resynch before preg check, $		
Calving Interval, d	13.7	
Dry Period, d	60	

7. Heat Detection Labor Cost

	Current	Alternative
Laborers	1	1
hr/d	2.5	2.5

8. Activity Monitors for Heat Detection

	Current	Alternative
System Cost, $	7,000	0
Number of monitors	250	0
Cost per monitor, $	100	0
Maintenance, $/yr	250	0
Life expectancy, yr	10	0
Salvage value, %	25%	0%

9. Pregnancy Diagnosis Cost

	Current	Alternative
Palpation, $/hr	105	
Ultrasound, $/hr		135
Blood Test, $/cow		

10. Labor Required for Injections and Labor Required for Pregnancy Diagnosis

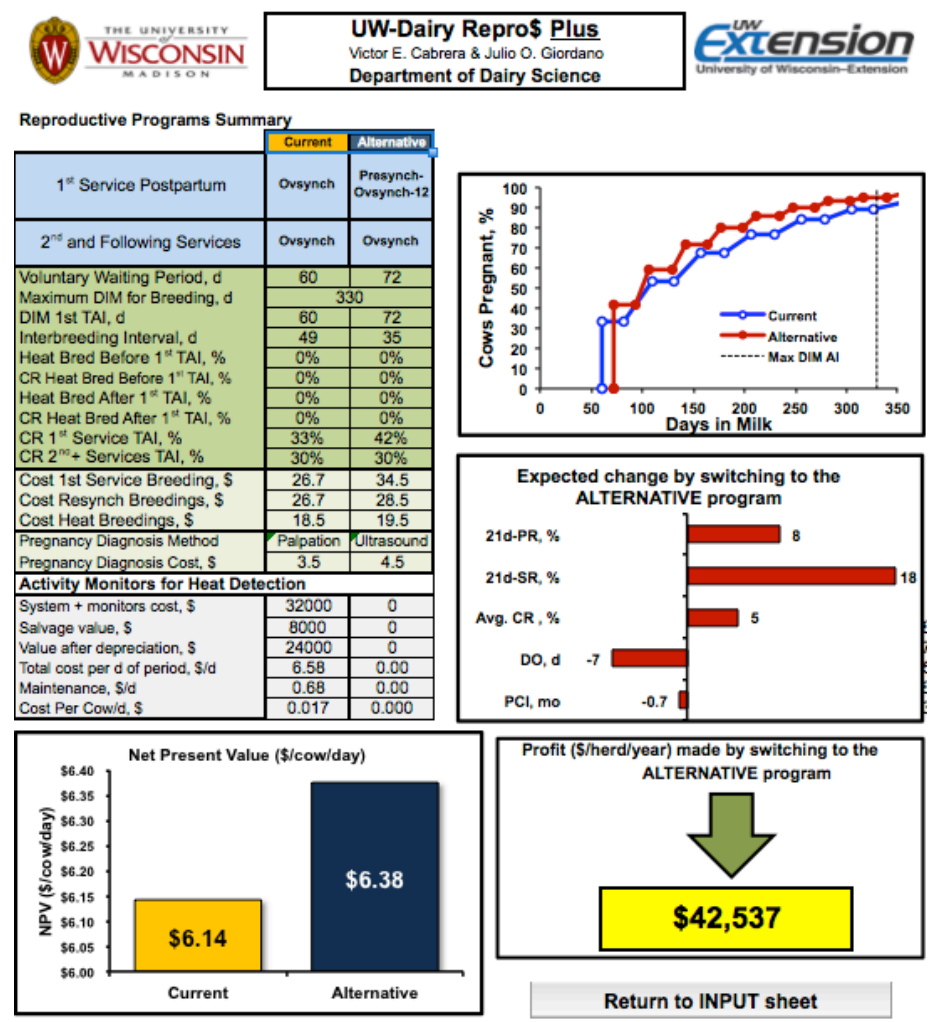
			Mon	Tue	Wed	Thu	Fri	Sat	Sun
Current	Injections	Laborers	1		1				
		hr/d	2		1				
		# Cows	50		30				
	Pregnancy Diagnosis	hr/d	1						
		# Cows	30						
Alternative	Injections	Laborers		2		1			
		hr/d		2.5		2			
		# Cows		75		60			
	Pregnancy Diagnosis	hr/d		1					
		# Cows		30					

11. Hormones Cost

		Vial, $	# Doses
GnRH	Factrel	20	10
PGF	Estrumate	25	10
P4 Insert	CIDR		
hCG	Chorulon		

Parity Group to ANALYZE: All

Run ANALYSIS



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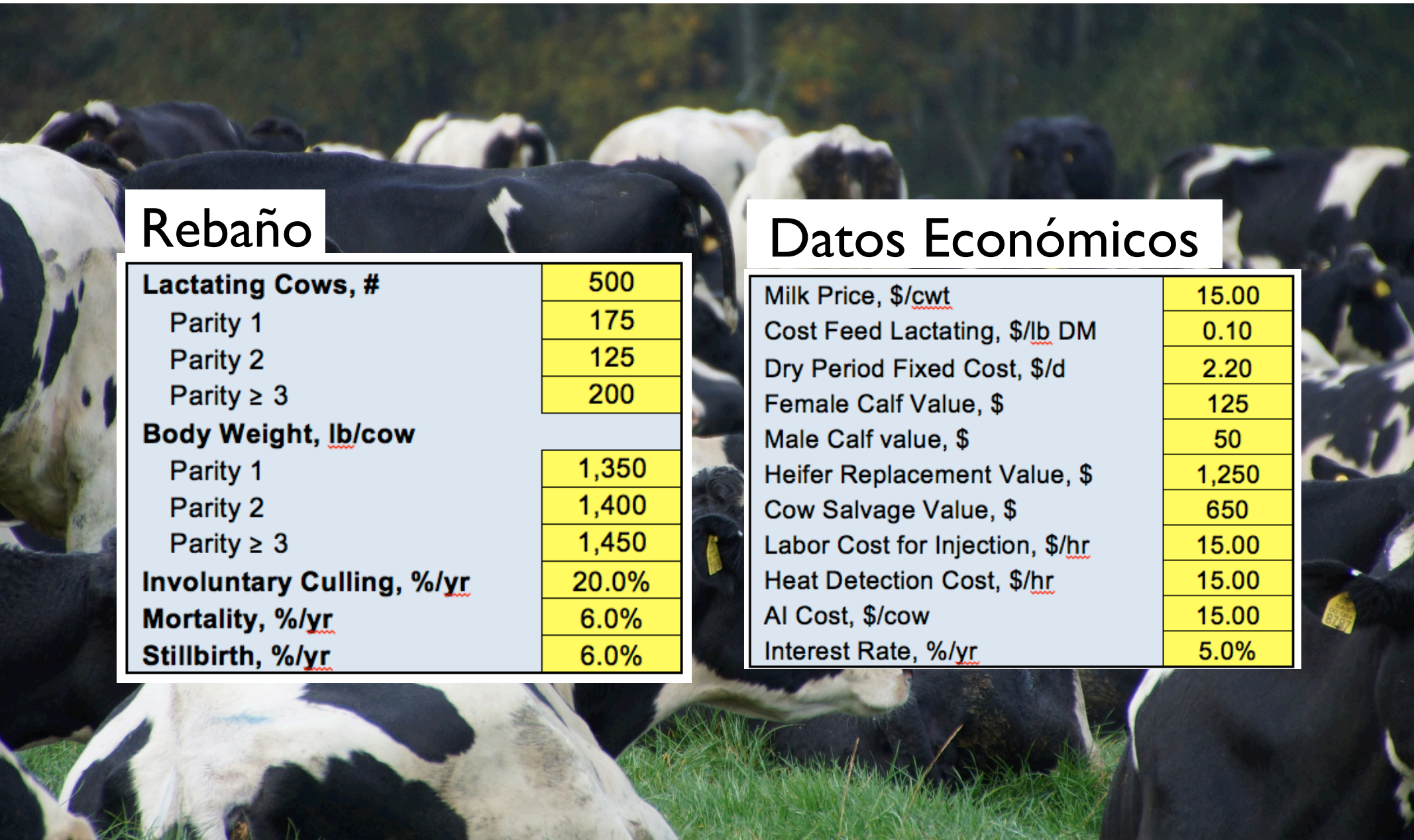
Department of Dairy Science

Reproductive Programs Summary

	Current	Alternative
1st Service Postpartum	Ovsynch	Presynch-Ovsynch-12
2nd and Following Services	Ovsynch	Ovsynch
Voluntary Waiting Period, d	60	72
Maximum DIM for Breeding, d	330	
DIM 1st TAI, d	60	72
Interbreeding Interval, d	49	35
Heat Bred Before 1st TAI, %	0%	0%
CR Heat Bred Before 1st TAI, %	0%	0%
Heat Bred After 1st TAI, %	0%	0%
CR Heat Bred After 1st TAI, %	0%	0%
CR 1st Service TAI, %	33%	42%
CR 2nd+ Services TAI, %	30%	30%
Cost 1st Service Breeding, $	26.7	34.5
Cost Resynch Breedings, $	26.7	28.5
Cost Heat Breedings, $	18.5	19.5
Pregnancy Diagnosis Method	Palpation	Ultrasound
Pregnancy Diagnosis Cost, $	3.5	4.5
Activity Monitors for Heat Detection		
System + monitors cost, $	32000	0
Salvage value, $	8000	0
Value after depreciation, $	24000	0
Total cost per d of period, $/d	6.58	0.00
Maintenance, $/d	0.68	0.00
Cost Per Cow/d, $	0.017	0.000

Return to INPUT sheet

Describiendo el Predio



Rebaño

Lactating Cows, #	500
Parity 1	175
Parity 2	125
Parity ≥ 3	200
Body Weight, lb/cow	
Parity 1	1,350
Parity 2	1,400
Parity ≥ 3	1,450
Involuntary Culling, %/yr	20.0%
Mortality, %/yr	6.0%
Stillbirth, %/yr	6.0%

Datos Económicos

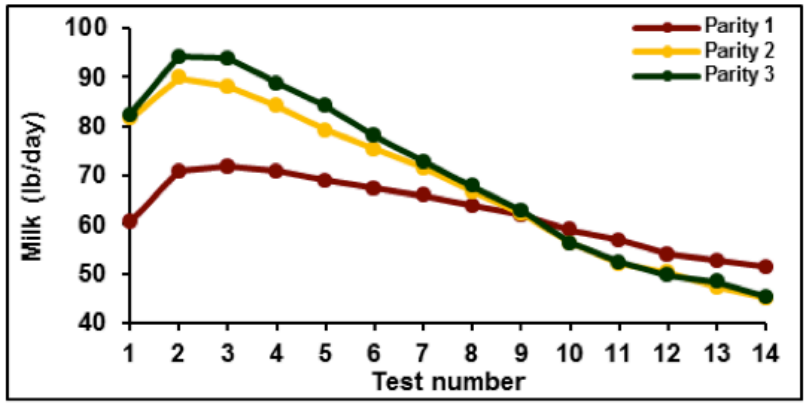
Milk Price, $/cwt	15.00
Cost Feed Lactating, $/lb DM	0.10
Dry Period Fixed Cost, $/d	2.20
Female Calf Value, $	125
Male Calf value, $	50
Heifer Replacement Value, $	1,250
Cow Salvage Value, $	650
Labor Cost for Injection, $/hr	15.00
Heat Detection Cost, $/hr	15.00
AI Cost, $/cow	15.00
Interest Rate, %/yr	5.0%

Describiendo el Predio

Curvas de lactancia

Own Farm Lactations (Enter/Edit NUMBERS Below)

Test	Parity 1	Parity 2	Parity ≥ 3
1	77	105	107
2	91	120	126
3	94	120	128
4	94	116	125
5	93	112	120
6	91	107	112
7	89	98	104
8	87	91	94
9	83	82	86
10	79	75	81
11	76	68	71
12	72	61	61
13	70	57	60
14	60	53	55



Personalizando el Predio

Programas Reproductivos

	Current	Start day
1st Service postpartum	Ovsynch	Tue
2nd and subsequent services	Ovsynch	Tue
Resynch before preg check	YES	

	Alternative	Start day
1st Service postpartum	Presynch-Ovsynch-12	Thu
2nd and subsequent services	Ovsynch	Tue
Resynch before preg check	YES	

Personalizando el Predio

Programas Reproductivos

	Current	Alternative
Voluntary Waiting Period, d	60	72
Estrus Cycle Duration, d	22	
Maximum DIM for Breeding,d	330	
DIM to 1st TAI, d	60	72
Interbreeding Interval, d	49	35
Heat Bred Before 1st TAI, %	50%	50%
CR Heat Bred Before 1st TAI, %	35%	35%
Heat Bred After 1st TAI, %	40%	40%
CR Heat Bred After 1st TAI, %	35%	35%
CR 1st Service TAI, %	33%	42%
CR 2nd+ Services TAI, %	30%	30%
Cost of 1st Service TAI, $		
Cost of 2nd+ Services TAI, $		
Cost of Heat Breeding, $		
Cost resynch before preg check, $		
Calving Interval, d	13.7	
Dry Period, d	60	

Personalizando el Predio

Fertilidad Esperada al Primer Servicio de la IATF

Synchronization Program	VWP (d)	Conception Rate (%)	
		Mean	Range
Presynch-Ovsynch-14	70-85	37	(32-42)
Presynch-Ovsynch-12	70-85	42	(37-47)
Presynch-Ovsynch-11	70-85	43	(37-47)
Presynch-Ovsynch-10	70-85	44	(37-47)
Double-Ovsynch	70-85	47	(40-50)
G-6-G	70-85	45	(37-47)
Ovsynch	60-75	33	(30-37)
Cosynch-72	60-75	26	(25-33)
Presynch-Ovsynch-12 w/CIDR	70-85	45	(40-50)
Double-Ovsynch w/ CIDR	70-85	50	(43-53)
Ovsynch w/ CIDR	60-75	36	(40-50)
Cosynch-72 w/ CIDR	60-75	32	(33-40)

Personalizando el Predio

Fertilidad Esperada para los servicios tardíos post IATF

Synchronization Program	Interbreeding Interval (d)	Conception Rate (%) Mean	Range
Ovsynch-Day 25	35	27	(24-30)
Ovsynch-Day 32	42	30	(25-35)
Ovsynch-Day 39	49	28	(25-32)
Double-Ovsynch	49	38	(33-42)
Short-Double-Ovsynch	42	34	(30-38)
HGPG (hCG-7d-Ovsynch)	35	37	(33-41)
GGPG (GnRH-7d-Ovsynch)	35	34	(27-37)
G-6-G	49	35	(32-38)
Cosynch-72-Day 25	35	23	(20-25)
Cosynch-72-Day 32	42	28	(24-32)
Cosynch-72-Day 39	49	25	(23-28)
Ovsynch-Day 32 w/ CIDR	42	33	(28-38)
Double-Ovsynch w/ CIDR	49	41	(36-45)
Short-Double-Ovsynch w/CIDR	42	37	(33-41)
HGPG (hCG-7d-Ovsynch) w/CIDR	35	40	(36-41)
GGPG (GnRH-7d-Ovsynch) w/ CIDR	35	35	(30-40)
G-6-G w/CIDR	49	38	(33-41)
Cosynch-72-Day 32 w/CIDR	42	31	(27-35)

Personalizando el Predio

M.O. Detección de Celos

	Current	Alternative
Laborers	1	1
hr/d	2.5	2.5

Diagnóstico de Preñez

	Current	Alternative
Palpation, $/hr	105	
Ultrasound, $/hr		135
Blood Test, $/cow		

Monitores de Actividad para Detección de Celos

Nuevo!

	Current	Alternative
System Cost, $	0	7,000
Number of monitors	0	350
Cost per monitor, $	0	110
Maintenance, $/yr	0	350
Life expectancy, yr	0	10
Salvage value, %	0%	25%

Personalizando el Predio

M.O. para aplicaciones y diagnóstico de preñez

			Mon	Tue	Wed	Thu	Fri	Sat	Sun
Actual	Injections	Laborers	1		1				
		hr/d	2		1				
		# Cows	50		30				
	Pregnancy	hr/d	1						
	Diagnosis	# Cows	30						

Alternatio	Injections	Laborers		2		1			
		hr/d		2.5		2			
		# Cows		75		60			
	Pregnancy	hr/d		1					
	Diagnosis	# Cows		30					

Personalizando el Predio

Costos de Hormonas

		Vial, $	# Doses
GnRH	Factrel	20	10
PGF	Estrumate	25	10
P4 Insert	CIDR		
hCG	Chorulon		

Alternative

Ejecutar un análisis

Resultado del Análisis

Resumen de los Programas Reproductivos Analizados

	Current	Alternative
1st Service Postpartum	Ovsynch	Presynch-Ovsynch-12
2nd and Following Services	Ovsynch	Ovsynch
Voluntary Waiting Period, d	60	72
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DIM 1st TAI, d	60	72
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CR Heat Bred Before 1st TAI, %	35%	35%
Heat Bred After 1st TAI, %	40%	40%
CR Heat Bred After 1st TAI, %	35%	35%
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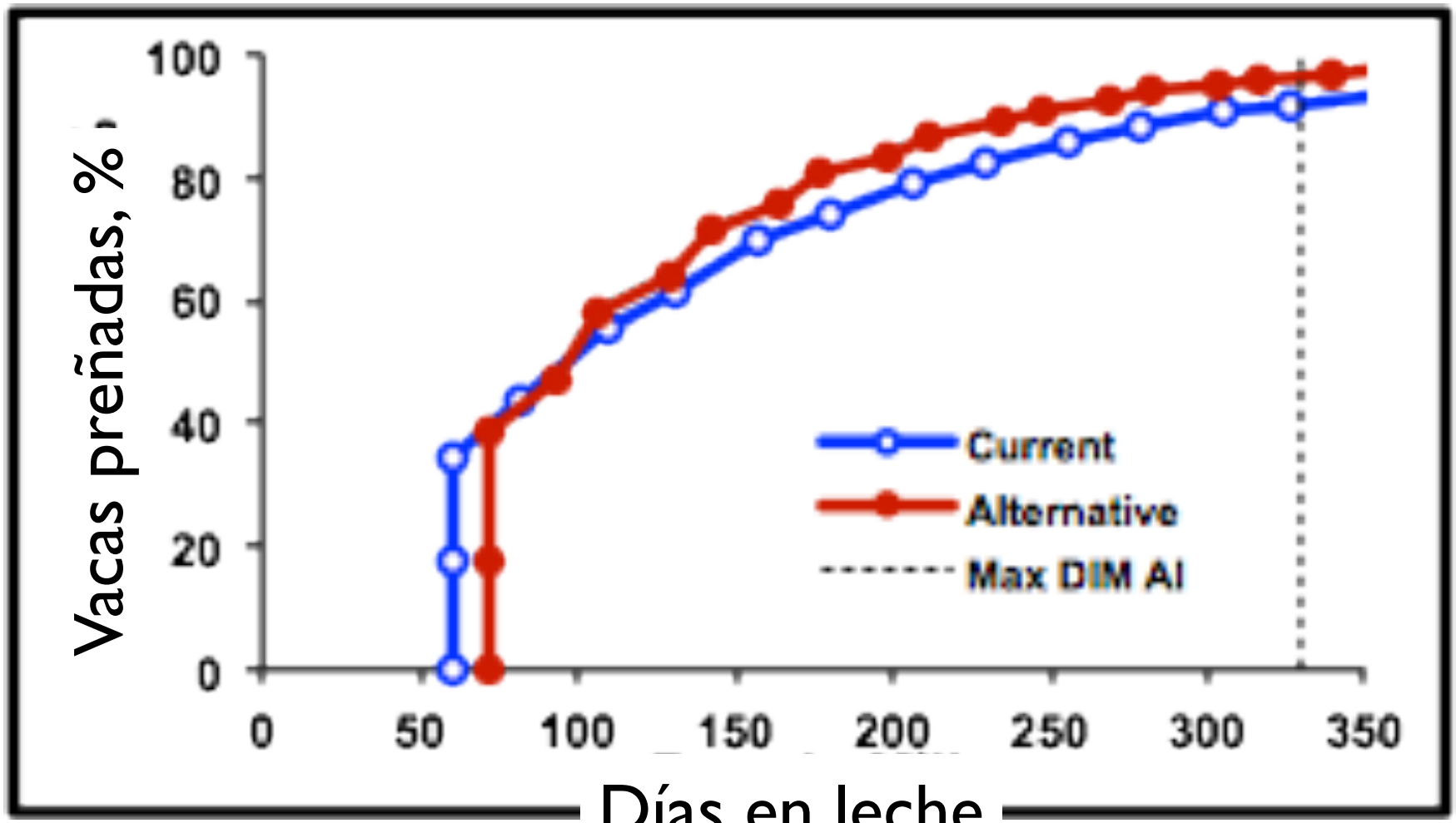
Cost Heat Breedings, $	18.5	19.5
Pregnancy Diagnosis Method	Palpation	Ultrasound
Pregnancy Diagnosis Cost, $	3.5	4.5

Análisis de los Resultados

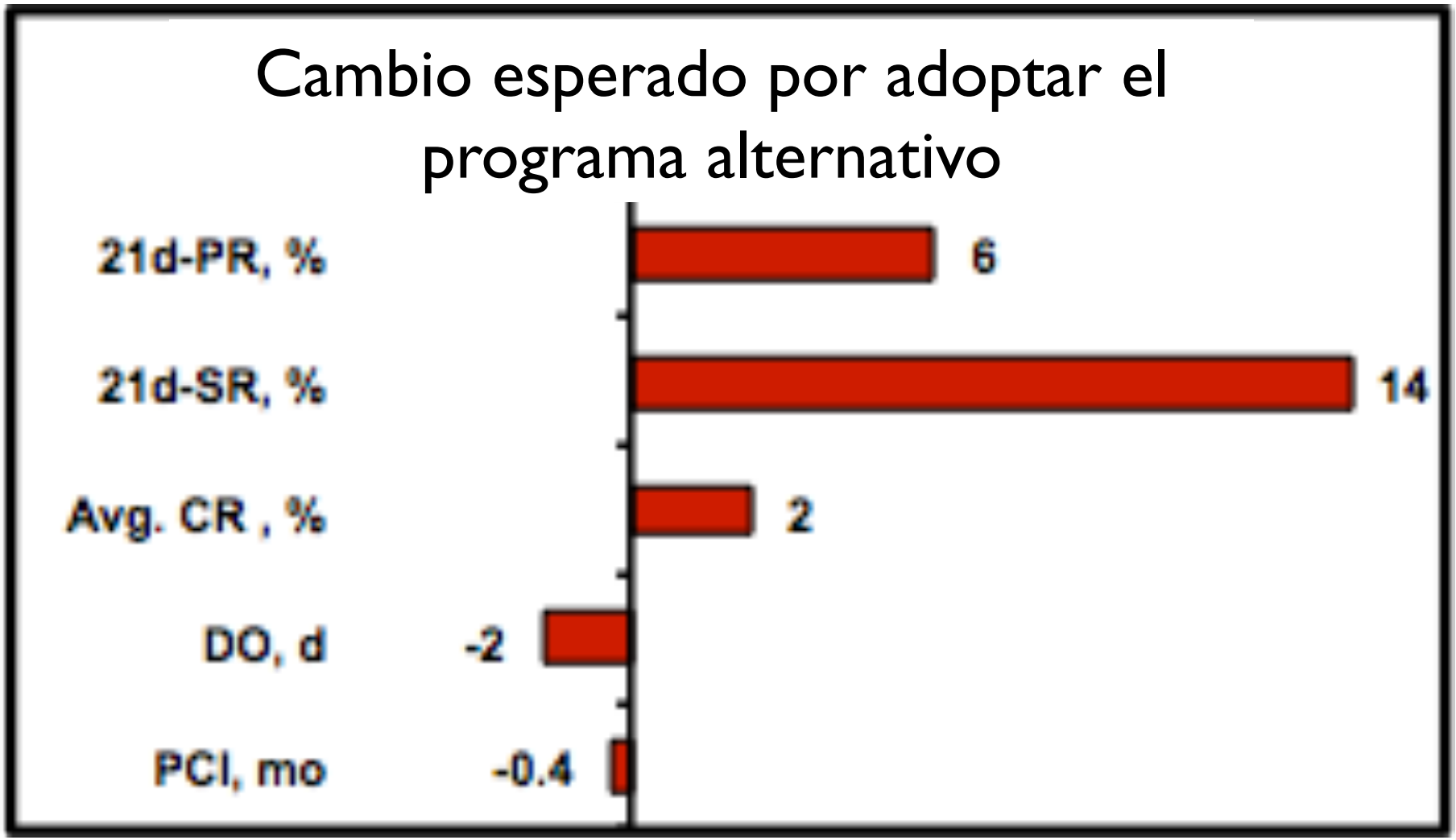
Monitores de Actividad para Detección de Celos

	Current	Alternative
System + monitors cost, $	0	32000
Salvage value, $	0	8000
Value after depreciation, $	0	24000
Total cost per d of period, $/d	0.00	6.58
Maintenance, $/d	0.00	0.68
Cost Per Cow/d, $	0.000	0.017

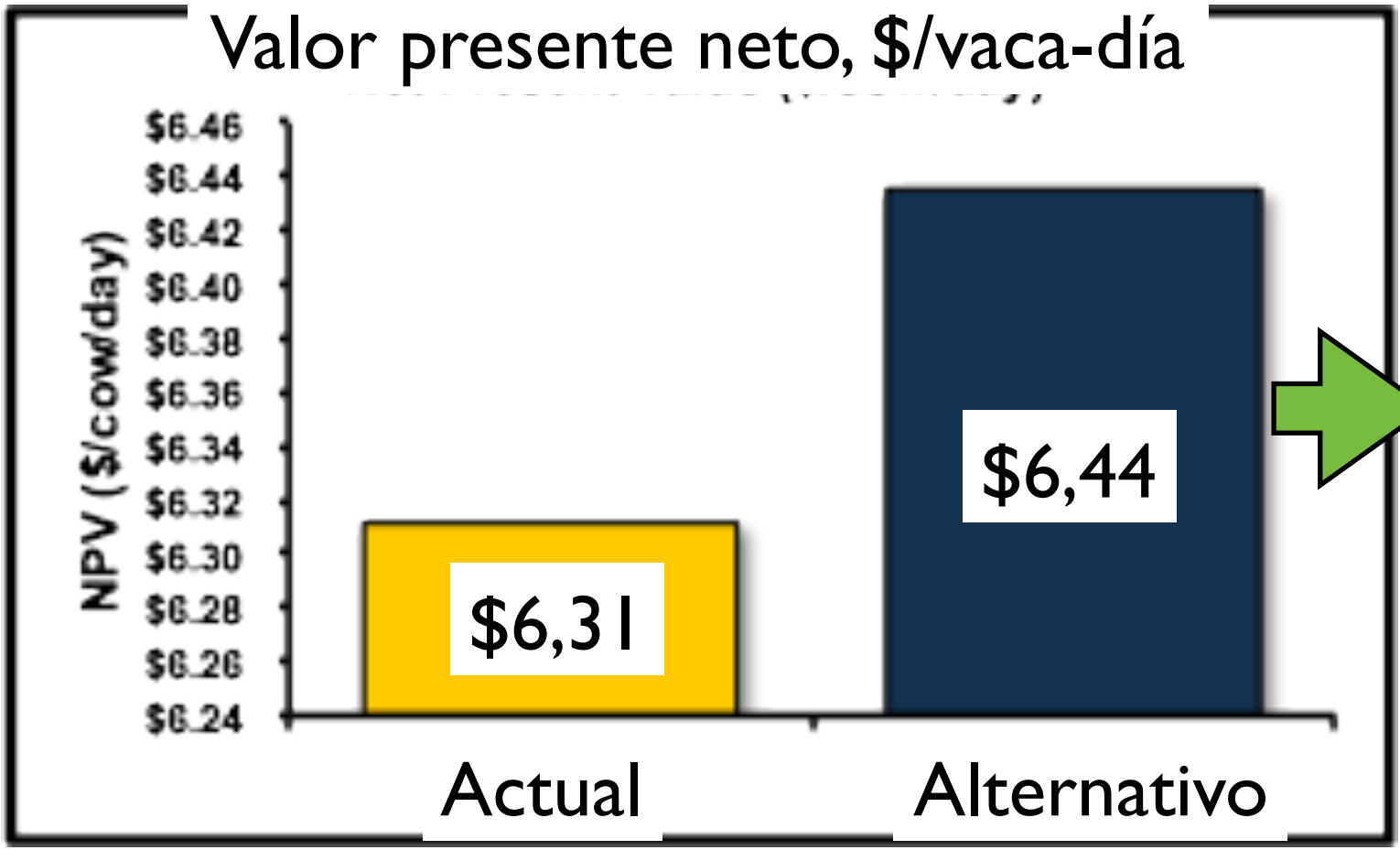
Análisis de los Resultados



Análisis de los Resultados



Rendimiento Económico



$47.450

por 1.000 vacas al año

UW-Dairy Repro$Plus

Donde encontrarlo

DairyMGT.info

Tools (herramientas)

Agradecimientos

Este proyecto es apoyado por la "University of Wisconsin-Madison College of Agriculture of Life Sciences Hatch"

"Grant No. WIS01577 to V.E.C."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Gracias