

**EFECTO DE LA INCLUSIÓN DE  
CULTIVO DE LEVADURAS  
“DIAMOND V XP®” EN DIETAS PARA  
GANADO LECHERO**

# **ANEXOS**

**Anexo 1. Listado de promedios de producción del grupo Diamond V XP®**

VACA	# de parto	PARTO	ENTRO	TERMINÓ	Prom. 80 DEL
1520	1	19-Dic-01	22-Dic-01	12-Mar-02	36.28
1560	1	23-Oct-01	6-Nov-01	25-Ene-02	28.95
1564	1	15-Nov-01	18-Nov-01	6-Feb-02	28.09
1572	1	02-Dic-01	5-Dic-01	23-Feb-02	31.72
1574	1	28-Oct-01	2-Nov-01	21-Ene-02	32.81
1597	1	19-Oct-02	22-Oct-02	10-Ene-03	39.44
1599	1	30-Jul-02	02-Ago-02	21-Oct-02	32.00
1602	1	11-Abr-02	15-Abr-02	4-Jul-02	31.86
1608	1	15-May-02	19-May-02	7-Ago-02	32.18
1623	1	05-Ago-02	15-Ago-02	3-Nov-02	23.14
1624	1	20-Sep-02	25-Sep-02	14-Dic-02	33.87
1631	1	27-Mar-03	02-Abr-03	21-Jun-03	36.84
1638	1	3-Nov-02	8-Nov-02	27-Ene-03	29.74
1641	1	4-Nov-02	8-Nov-02	27-Ene-03	33.80
1642	1	29-Dic-02	2-Ene-03	23-Mar-03	30.38
1646	1	12-Nov-02	16-Nov-02	4-Feb-03	29.08
1438	2	05-Dic-01	8-Dic-01	26-Feb-02	43.98
1501	2	13-Oct-01	16-Oct-01	4-Ene-02	35.85
1608	2	29-Mar-03	04-Abr-03	23-Jun-03	40.77
1431	3	02-Nov-01	7-Nov-01	26-Ene-02	43.39
1459	3	23-Nov-02	26-Nov-02	14-Feb-03	45.58
1486	3	09-Ene-03	12-Ene-03	2-Abr-03	43.73
1497	3	08-Dic-02	12-Dic-02	2-Mar-03	40.57
1438	4	1-Nov-02	5-Nov-02	24-Ene-03	47.13
<b>Promedio</b>					<b>35.47</b>

## Anexo 2. Listado de promedios de producción del grupo Testigo

VACA	# de parto	PARTO	ENTRO	TERMINÓ	Prom. 80 DEL
1510	1	23-Dic-01	26-Dic-01	16-Mar-02	36.10
1557	1	14-Nov-01	17-Nov-01	5-Feb-02	25.05
1559	1	26-Oct-01	30-Oct-01	18-Ene-02	30.74
1569	1	01-Nov-01	6-Nov-01	25-Ene-02	25.04
1575	1	30-Nov-01	4-Dic-01	22-Feb-02	29.41
1600	1	14-Abr-02	18-Abr-02	7-Jul-02	38.78
1605	1	06-Ago-02	10-Ago-02	29-Oct-02	28.54
1607	1	09-May-02	13-May-02	1-Ago-02	31.22
1618	1	28-Jul-02	1-Ago-02	20-Oct-02	28.75
1622	1	26-Mar-03	3-Abr-03	22-Jun-03	33.81
1630	1	16-Sep-02	20-Sep-02	9-Dic-02	26.58
1634	1	22-Oct-02	27-Oct-02	15-Ene-03	18.15
1635	1	04-Nov-02	08-Nov-02	27-Ene-03	20.01
1639	1	02-Nov-02	06-Nov-02	25-Ene-03	31.52
1640	1	12-Nov-02	15-Nov-02	3-Feb-03	26.61
1658	1	31-Dic-02	05-Ene-03	26-Mar-03	31.51
1422	2	13-Dic-01	17-Dic-01	7-Mar-02	32.77
1495	2	16-Oct-01	20-Oct-01	8-Ene-02	42.23
1604	2	1-Abr-03	6-Abr-03	25-Jun-03	39.83
1432	3	28-Oct-01	31-Oct-01	19-Ene-02	41.28
1442	3	15-Ene-03	21-Ene-03	11-Abr-03	37.86
1479	3	10-Dic-02	13-Dic-02	3-Mar-03	46.27
1509	3	21-Nov-02	24-Nov-02	12-Feb-03	46.80
1396	4	04-Nov-02	08-Nov-02	27-Ene-03	43.27
<b>Promedio</b>					<b>33.00</b>

### Anexo 3. Reporte estadístico de la prueba hechas en Minitab.

#### General Linear Model: Leche versus Grupo, Parto

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Factor  Type  Levels  Values
Grupo   fixed     2    1, 8
Parto   fixed     4    1, 2, 3, 4
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Analysis of Variance for Leche, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
Grupo	1	75.34	75.34	75.34	4.16	0.048 Significativo
Parto	3	1572.54	1572.54	524.18	28.93	0.000 Significativo
Error	41	742.87	742.87	18.12		(en la última página se presentan las medias)
Total	45	2390.76				

S = 4.25662 R-Sq = 68.93% R-Sq(adj) = 65.90%

Tukey 95.0% Simultaneous Confidence Intervals  
Response Variable Leche  
All Pairwise Comparisons among Levels of Grupo  
Grupo = 1 subtracted from:

Grupo	Lower	Center	Upper
8	0.02462	2.560	5.095

Tukey 95.0% Simultaneous Confidence Intervals  
Response Variable Leche  
All Pairwise Comparisons among Levels of Parto  
Parto = 1 subtracted from:

Parto	Lower	Center	Upper
2	4.150	9.251	14.35
3	8.659	13.198	17.74
4	6.884	15.215	23.55

Parto = 2 subtracted from:

Parto	Lower	Center	Upper
3	-2.214	3.946	10.11
4	-3.351	5.963	15.28

Parto = 3 subtracted from:

Parto	Lower	Center	Upper
4	-7.002	2.017	11.04

## General Linear Model: CC versus Grupo, Parto

Factor	Type	Levels	Values
Grupo	fixed	2	1, 8
Parto	fixed	4	1, 2, 3, 4

Analysis of Variance for CC, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
Grupo	1	0.00543	0.00543	0.00543	0.11	0.739 No significativo
Parto	3	0.22527	0.22527	0.07509	1.56	0.214 No significativo
Error	41	1.97582	1.97582	0.04819		
Total	45	2.20652				

S = 0.219524    R-Sq = 10.46%    R-Sq(adj) = 1.72%

Tukey 95.0% Simultaneous Confidence Intervals

Response Variable CC

All Pairwise Comparisons among Levels of Grupo

Grupo = 1 subtracted from:

Grupo	Lower	Center	Upper	
8	-0.1090	0.02174	0.1525	(-----*-----)
				-----+-----+-----+-----+-----
				-0.080      0.000      0.080      0.160

Tukey 95.0% Simultaneous Confidence Intervals

Response Variable CC

All Pairwise Comparisons among Levels of Parto

Parto = 1 subtracted from:

Parto	Lower	Center	Upper	
2	-0.1131	0.1500	0.4131	(-----*-----)
3	-0.3133	-0.0792	0.1549	(-----*-----)
4	-0.5713	-0.1417	0.2880	(-----*-----)
				-----+-----+-----+-----+-----
				-0.70      -0.35      0.00      0.35

Parto = 2 subtracted from:

Parto	Lower	Center	Upper	
3	-0.5469	-0.2292	0.08856	(-----*-----)
4	-0.7720	-0.2917	0.18869	(-----*-----)
				-----+-----+-----+-----+-----
				-0.70      -0.35      0.00      0.35

Parto = 3 subtracted from:

Parto	Lower	Center	Upper	
4	-0.5276	-0.06250	0.4026	(-----*-----)
				-----+-----+-----+-----+-----
				-0.70      -0.35      0.00      0.35

## General Linear Model: Grasa versus Grupo, Parto

Factor	Type	Levels	Values
Grupo	fixed	2	1, 8
Parto	fixed	4	1, 2, 3, 4

Analysis of Variance for Grasa, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
Grupo	1	0.0802	0.0802	0.0802	0.33	0.570 No significativo
Parto	3	0.3701	0.3701	0.1234	0.50	0.681 No significativo
Error	41	10.0323	10.0323	0.2447		
Total	45	10.4827				

S = 0.494663 R-Sq = 4.30% R-Sq(adj) = 0.00%

Tukey 95.0% Simultaneous Confidence Intervals  
 Response Variable Grasa  
 All Pairwise Comparisons among Levels of Grupo  
 Grupo = 1 subtracted from:

Grupo	Lower	Center	Upper	-----+-----+-----+-----+---
8	-0.2111	0.08352	0.3781	(-----*-----)
				-----+-----+-----+-----+---
				-0.16      0.00      0.16      0.32

Tukey 95.0% Simultaneous Confidence Intervals  
 Response Variable Grasa  
 All Pairwise Comparisons among Levels of Parto  
 Parto = 1 subtracted from:

Parto	Lower	Center	Upper	-----+-----+-----+-----+---
2	-0.8605	-0.2676	0.3253	(-----*-----)
3	-0.5444	-0.0169	0.5106	(-----*-----)
4	-0.9469	0.0212	0.9894	(-----*-----)
				-----+-----+-----+-----+---
				-0.70      0.00      0.70      1.40

Parto = 2 subtracted from:

Parto	Lower	Center	Upper	-----+-----+-----+-----+---
3	-0.4652	0.2507	0.9666	(-----*-----)
4	-0.7936	0.2888	1.3712	(-----*-----)
				-----+-----+-----+-----+---
				-0.70      0.00      0.70      1.40

Parto = 3 subtracted from:

Parto	Lower	Center	Upper	-----+-----+-----+-----+---
4	-1.010	0.03812	1.086	(-----*-----)
				-----+-----+-----+-----+---
				-0.70      0.00      0.70      1.40

## General Linear Model: Prot versus Grupo, Parto

Factor	Type	Levels	Values
Grupo	fixed	2	1, 8
Parto	fixed	4	1, 2, 3, 4

Analysis of Variance for Prot, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
Grupo	1	0.08696	0.08696	0.08696	2.11	0.154 No significativo
Parto	3	0.07657	0.07657	0.02552	0.62	0.607 No significativo
Error	41	1.69254	1.69254	0.04128		
Total	45	1.85607				

S = 0.203179 R-Sq = 8.81% R-Sq(adj) = 0.00%

Tukey 95.0% Simultaneous Confidence Intervals  
 Response Variable Prot  
 All Pairwise Comparisons among Levels of Grupo  
 Grupo = 1 subtracted from:

Grupo	Lower	Center	Upper
8	-0.2080	-0.08696	0.03404

+-----+-----+-----+-----+  
 (------\*-----)  
 +-----+-----+-----+-----+

-0.210      -0.140      -0.070      0.000

Tukey 95.0% Simultaneous Confidence Intervals  
 Response Variable Prot  
 All Pairwise Comparisons among Levels of Parto  
 Parto = 1 subtracted from:

Parto	Lower	Center	Upper
2	-0.2918	-0.0483	0.1952
3	-0.3235	-0.1069	0.1098
4	-0.4012	-0.0035	0.3942

---+-----+-----+-----+---  
 (-----\*-----)  
 (-----\*-----)  
 (-----\*-----)  
 ---+-----+-----+-----+---

-0.30      0.00      0.30      0.60

Parto = 2 subtracted from:

Parto	Lower	Center	Upper
3	-0.3526	-0.05854	0.2355
4	-0.3998	0.04483	0.4894

---+-----+-----+-----+---  
 (-----\*-----)  
 (-----\*-----)  
 ---+-----+-----+-----+---

-0.30      0.00      0.30      0.60

Parto = 3 subtracted from:

Parto	Lower	Center	Upper
4	-0.3271	0.1034	0.5338

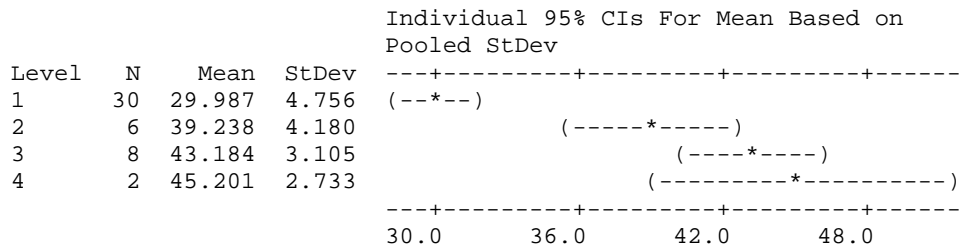
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 (-----\*-----)  
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-0.30      0.00      0.30      0.60

### One-way ANOVA: Leche versus Parto

Source	DF	SS	MS	F	P
Parto	3	1572.5	524.2	26.91	0.000
Error	42	818.2	19.5		
Total	45	2390.8			

S = 4.414    R-Sq = 65.78%    R-Sq(adj) = 63.33%



Pooled StDev = 4.414

#### Anexo 4. Eficiencia Reproductiva

Pareja	Parto	Diamond V XP			Testigo		
		# Vaca	DA	servicios/conc	# Vaca	DA	servicios/conc
2	1	1560	52	1	1559	93	2
4	1	1574	55	1	1569	58	1
5	1	1564	66	1	1557	194	4
6	1	1572	160	1	1575	78	1
9	1	1602	128	3	1600	180	3
10	1	1608	43	1	1607	103	2
11	1	1599	75	1	1618	213	3
12	1	1623	45	1	1605	318	6
13	1	1624	65	1	1630	67	1
14	1	1597	168	2	1634	89	2
15	1	1641	278	3	1639	155	2
17	1	1638	324	5	1635	162	3
18	1	1646	83	1	1640	156	4
21	1	1642	137	2	1658	155	2
<b>Total</b>			<b>119.93</b>	<b>1.71</b>		<b>144.36</b>	<b>2.57</b>
1	2	1501	45	1	1495	90	1
7	2	1438	56	1	1422	132	1
24	2	1608	61	1	1604	66	1
<b>Total</b>			<b>54</b>	<b>1</b>		<b>96</b>	<b>1</b>
3	3	1431	399	3	1432	129	3
20	3	1497	74	1	1479	58	1
22	3	1486	86	1	1442	71	1
<b>Total</b>			<b>80</b>	<b>1.67</b>		<b>64.5</b>	<b>1.67</b>
<b>Total de grupo</b>			<b>120</b>	<b>1.6</b>		<b>128.35</b>	<b>2.2</b>

Nota: Se eliminaron 4 parejas de este análisis. Una por muerte y tres porque fueron enviadas al rastro por diferentes motivos. Por lo tanto se excluyeron de este cuadro.