

Producing Heavy Lamb... but at what price?

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OVIPRO



Services - conseils

Objectives of the presentation

- Evaluate if it is profitable to finish all your lambs...
- Clarify the factors to take into consideration...
- A few management points...



Presentation Plan

- An English lesson
- A comprehension lesson
- A mathematics lesson
 - Perspective on income: lambs
 - Perspective on income: prolificy
 - Perspective on income: performance (ADG)
 - Evaluate : management, feeding, genetic
 - Conclusion



A Lesson in English

What is profitability?

Webster's Dictionary definition :

«yielding advantageous returns or results»

Therefore: A profitable activity allows the business to increase the profit, either by increasing revenues or decreasing expenses.



A Comprehension Lesson

Objectives of heavy lamb production

1. Produce more kilograms of meat per ewe in inventory;
2. Spread production and income over a 12 months;
3. Spread production expenses/+ volume;
4. Minimize risks of price fluctuation;
5. Increase income per ft^2 ;
6. Support a collective production.



A Comprehension Lesson

Objective of light lamb production

1. Get MAXIMUM prices for that category by offering a quality product in demand;
2. Accommodate the space in the barn;
3. Profit from market opportunities;
4. Make business decisions for the farm.



A Comprehension Lesson

Objective of milk lamb production

1. Target the majority of sales at Christmas and Easter, specific markets;
2. Get MAXIMUM prices for that category by offering a quality product in demand;
3. Optimize the space in the barn for the ewes.



A Mathematics Lesson

Perspectives of income: Lambs

Calculated on weight of lambs weaned:

Average Revenue milk lambs	50 lbs	$\times \$2.11 / \text{lb}$	$= \$105.50 + \$37.49 = \$142.99$
	35 lbs	$\times \$2.27 / \text{lb}$	$= \$79.45 + \$26.24 = \$105.69$
Average Revenue light lambs	70 lbs	$\times \$1.89 / \text{lb}$	$= \$132.30 + \$52.50 = \$184.80$
Average Revenue heavy lambs	22 kg carcass *47,3 kg	$\times \$7.85 / \text{kg carcass}^*$	$= \$172.70 + \$78.05 = \$250.75$

•Reference: Market Agency price October 20 to November 30 2013

•Reference: Ste-Hyacinthe Auction week of October 28, 2013

•ASRA: \$1,65 net/kg live lamb (*\$ compensation/head not included)

•Feed costs per heavy between \$30 and \$50/head (to come)

•* carcass yield = 46,5 %



A Mathematics Lesson



Perspectives in income: Prolificy

Calculation based on different prolificity: lambs of 50 lbs or 22,72kg

2 lambs/ewe	\$211 (\$105.50 × 2)	+ ASRA \$75 (\$2.7858-1,1357/kg/) \times 2
	=	\$286/ewe
1.3 lambs/ewe	\$137.15 (\$ 105.50 × 1,3)	+ ASRA \$48.75 (\$2.7858-1.1357/kg/)
	=	185,90\$/brebis
1 lamb/ewe	\$105.50	+ ASRA \$37.50 (\$2.7858-1.1357/kg/)
	=	\$143/ewe



A Mathematics Lesson

Feed charges per kilo of gain !

- Starting Point: milk lamb 50lbs (22,7 kg)
- Ending Point: heavy lambs 104lbs (47,3 kg)
- Gain of 24,6 kg/ Gain carcass 11,4 kg
- 123 raising days with an ADJ of **200** g/d

Feed Cost per day per lamb:

Hay	0,2138 kg d.m. / day	x \$150.00 / t (d.m.)	\$0,032
Grains	0,9152 kg d.m /day	x \$300.00 / t (d.m.)	\$0,274
Supplements	0,15 kg d.m / day	x \$598.00 / t (d.m.)	\$0,090
Feed Cost /day			\$0,396
Total Feed Cost :	123	\$ 0.396 / day =	\$48,71
Feed Cost per kg of gain			\$1.98
Feed Cost per kg of carcass			\$4.27



A Lesson in Mathematics

Feed charges per kilo of gain !

- Starting Point: milk lamb 50lbs (22,7 kg)
- Ending Point: heavy lambs 104lbs (47,3 kg)
- Gain of 24,6 kg/ Gain carcass 11,4 kg
- 82 feeding days with an ADG of **300** g/day

Feed Cost per day per lamb:			
Hay	0,2138 kg d.m / day	x \$150.00 / t (d.m.)	\$0.032
Grains	0,9152 kg d.m / day	x \$300.00 / t (d.m.)	\$0.274
Supplements	0,15 kg d.m /day	x \$598.00 / t (d.m.)	\$0.090
Feed Cost /day			\$0.396
Total Feed Cost :	82	\$0.396 / day =	\$32.47
Feed Cost per kg of gain			\$1.32
Feed Cost per kg of carcass			\$2.85



And if we compare !

Starting Weight 22,7kg Final Weight 47,3kg Total Gain 24,6kg
 ASRA 75% per kg \$1.65

ADG in grams		200	300	400
Raising Days		123	82	62
Feed cost/day		\$0.396	\$0.396	\$0.396
total \$ feed		\$48.71	\$32.47	\$24.35

Sale of Produce		\$172.70	\$172.70	\$172.70
ASRA 75% kg		\$78.05	\$78.05	\$78.05
Total produce		\$250.75	\$250.75	\$250.75

Difference		\$202.04	\$218.27	\$226.39
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per lamb			+\$16.24	+\$24.35
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And if we compare!

no classification impact



Simulation

100 lambs sold

Difference

	category	Number of head	produce-feed cost	total	
100% heavy	Inferior	25	\$202.04	\$5 050.93	
	Average	50	\$218.27	\$10 913.65	
	Superior	25	\$226.39	\$5 659.78	
				\$21 624.35	\$2 313.00

25% milk		25	\$142.99	\$3 574.75	
75% heavy	Average	50	\$218.27	\$10 913.65	
	Superior	25	\$226.39	\$5 659.78	
				\$20 148.18	\$836.83

25% milk		25	\$142.99	\$3 574.75	
25% light		25	\$184.80	\$4 620.00	
50% heavy	ave/sup	50	\$222.33	\$11 116.60	
				\$19 311.35	



Simulation of financial impacts based on carcass classification

Carcass Weight kg	Price per kilo	Index	Total	ASRA(1)	Total (+1)
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With contract

22	\$8.10	70	\$124.74	\$78.05	\$202.79
22(47,3 kg)	\$8.10	100	\$178.20	\$78.05	\$256.25
22	\$8.10	105	\$187.11	\$78.05	\$265.16

17(36,5 kg)	\$8.10	100	\$137.70	\$60.22	\$197.92
24(51,6 kg)	\$8.10	100	\$194.40	\$85.14	\$279.54

Without contract

22	\$7.85	70	\$118.58	\$78.05	196.63\$
22	\$7.85	100	\$169.40	\$78.05	247.45\$
22	\$7.85	105	\$177.87	\$78.05	255.92\$

Carcass yield at 46,5%

Price at marketing agency from October 20 to November 30



Mathematically it is positive, but practically what decision to make?

Evaluate:

A) Your weight gain results before making a good decision



An interesting tool from CEPOQ

- *Lambs that gain are profitable!*
- *They come from terminal breeds!!!*
- Calculator conclusive calculation of ADG

— www.cepoq.com

- This tool allows you to determine if it is profitable to keep the lamb for a heavy lamb considering its ADG, the input cost, the cost of yardage and market cost (milk or light) !!





gmq_decisif.xls [Lecture seule] [Mode de compatibilité] - Microsoft Excel

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1 - REVENU BRUT AGNEAU	
AGNEAU LOURD	
Poids vif (kg)	47,9
Poids carcasse vendu (kg)	23,0
Prix de l'agneau lourd (\$)	7,93 \$
Indice moyen	100%
Frais de commercialisation (\$)	6,00 \$
Frais de tonte à l'abattoir (\$)	1,50 \$
Frais de classification + tonte (\$)	1,75 \$
Revenu brut lourd après frais (\$)	173,14 \$
AGNEAU DE LAIT	
Poids vif (livres)	50,0
Poids en kg	22,7
Prix moyen (\$)	2,42 \$
Frais d'encan	6,00 \$
Revenu brut lait après frais (\$)	115,00 \$
Écart de prix brut (lait et lourd)	58,14 \$

2 - DÉPENSES BRUTES ALIMENTS AGNEAU LOURD					
<i>*à calculer selon le programme alimentaire journalier servi par agneau dans votre entreprise</i>					
	FOURRAGES	MAÏS/ORGE	SUPPLÉMENT	MINÉRAL	AUTRE
Prix à la tonne (\$)					
Quantité servie (kg/jour)					
Coût journalier (\$)	0,000 \$	0,000 \$	0,000 \$	0,000 \$	0,000 \$
Coût journalier d'alimentation pour un agneau lourd selon les chiffres présent	0,000 \$				

3 - REVENU COMPARATIF LAIT/LOURD (ALIMENT)	
Écart de poids entre la vente en agneau de lait ou en agneau lourd (kg)	25,2 kg
Gain de poids visé ou espéré pour un revenu optimal	0,250 kg
Coût d'alimentation (durant cette période) pour un agneau lourd selon le gain visé ou espéré	0,00 \$
Nombre de jours en engraissement selon le gain visé ou espéré	100,9 jours
Revenu supplémentaire (net aliment) pour un agneau lourd vs vente lait	58,14 \$
<i>* Si l'agneau de lait a environ 70 jours (à 60-65 livres), l'âge moyen à l'abattage lourd se</i>	
	170,9 jours

GMQ-DÉCISIF(<35kg)

Prêt

80 %



gmq_decisif.xls [Lecture seule] [Mode de compatibilité] - Microsoft Excel

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4 - MORTALITÉ	
Taux de mortalité engraissement	3%
Revenu brut 100 agneaux de lait	11 500,00 \$
Revenu brut 100 agneaux lourds	17 314,00 \$
Nombre de morts sur base de 100 lourds	3
Perte de revenu pour cette mortalité	519,42 \$
Perte de revenu lié au coût d'élevage	10,09 \$
Perte de revenu total pour mortalité	529,51 \$
Revenu brut lourd avec mortalité	16 784,49 \$
Écart brut avec et sans mortalité	529,51 \$
Perte de revenu/agneau lié à la mortalité	5,30 \$

5 - DÉPENSES COMPLÉMENTAIRES LOURDS		
<i>*à calculer par jour d'engraissement/agneau (selon votre situation)*</i>		
<i>Tous les postes de dépenses ne sont pas nécessairement à remplir si vous ne connaissez pas vos frais réel ces frais demeurent tout de même minimes par agneau, mais doivent être considérés</i>		
	Coût /jour	Coût total
Paille	0,05 \$	5,05 \$
Électricité	0,00 \$	0,00 \$
Charge du bâtiment	0,00 \$	0,00 \$
Temps consacré (pesées, soignage, ...)	0,00 \$	0,00 \$
Autres	0,00 \$	0,00 \$
		TOTAL
		5,05 \$

6 - REVENU LOURD	
Revenu comparatif lourds/lait	
Pour un gain de poids visé ou espéré de	0,250 g
REVENU FINAL LOURD VS LAIT	47,80 \$

7 - GMQ DÉCISIF	
Avec un gain de	0,250 g
Garder cet agneau pour l'élever en agneau lourd c'est un bon choix	OUI
Le gain ou perte est de	47,80 \$

SUIVI ET RECOMMANDATIONS

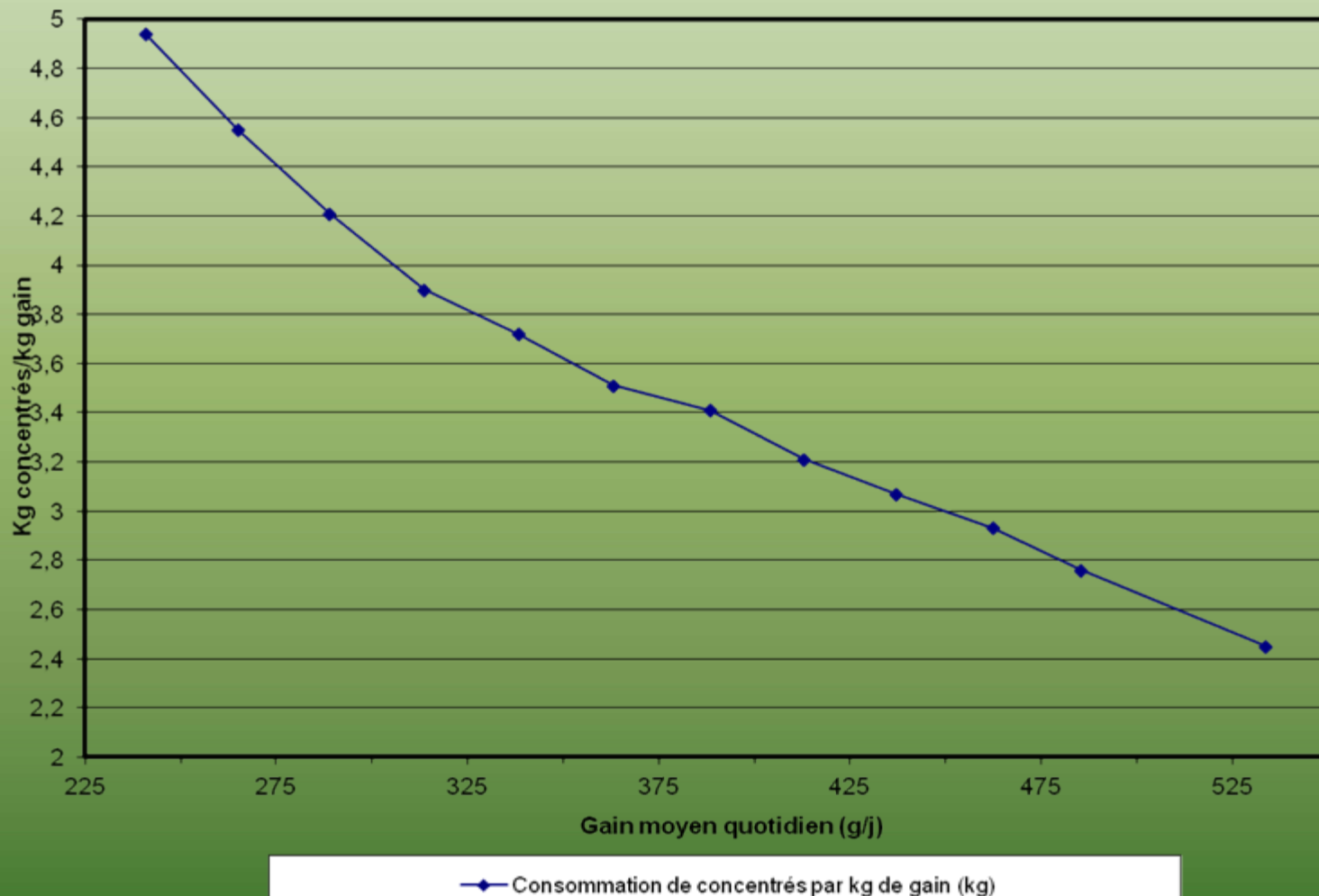
GMQ-DÉCISIF(<35kg)

Prêt

80 %

Actual Performance Data

Efficacité alimentaire selon le gain moyen quotidien (1128 Mâles)



Mathematically it is positive, but practically what decision to make?

Evaluate:

B) The feed management and the cost of feed



Good finishing starts with...

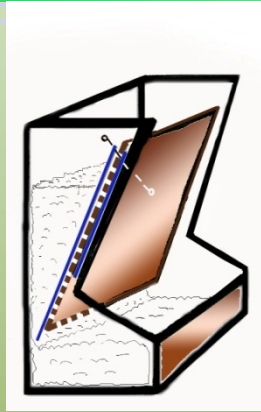


✓ GOOD START= IMPORTANCE OF COLOSTRUM

- Energy production to avoid hypothermia
- Principal source of antibodies
- If no ... more risk of sickness before weaning = + death risk before weaning
- Reduction in gain and weight at wean ...
 - Early intake of colostrum (within first 30 minutes) ... verify the udder condition!
- Assure that lambs have CONSUMED an adequate quantity of colostrum
 - Remember the rule: MAXIMUM 50 ml/kg/MEAL
- At least 200 ml of COLOSTRUM / kg of body weight in the first 18 hours
- WATCH THE QUANTITIES FEED! ... even bottle feeder



Management and feeding pre-weaning



Feeding in creep feeders before weaning; it's key!!!

- ✓ **WATER** accessible at all times and at birth... type of water bowl (float)
- ✓ **HAY** of very good **QUALITY** (< 32 to 34% ADF) and **REPLACE OFTEN**
- ✓ **CONCENTRATES FREE CHOICE** AND EASILY ACCESSIBLES...



Management and feeding pre-weaning

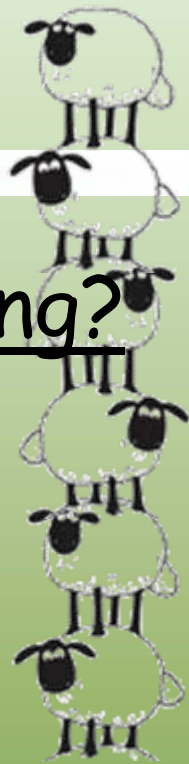
Which type of concentrate before weaning?

- ✓ Concentrate of 18% to 20% crude protein
- ✓ Complete creep or farm mix in the creep feeders ???
 - Creep starter commercial = IDEALLY PELLETTED
 - Hand mixed ... *not recommended*
 - Grinding ... not recommended



rumen
papillae

- Develops at a young age
- Increase surface contact for absorption in the rumen
- Essential to have a good rumen function in the future
- Develops with a well balanced ration... each bite must be balanced



Management and feeding post-weaning

Finally... weaning

- ✓ Wean around 6 to 8 weeks
- ✓ Target about 20 kg at weaning
- ✓ For a smooth weaning...consumation of 250 g/head/day



Mathematically it is positive, but practically what decision to take?

Evaluate:

C) Management of the finishing sector and the genetics



Finishing



Rapid growth
Moderate growth



Rapid growth... grain base...

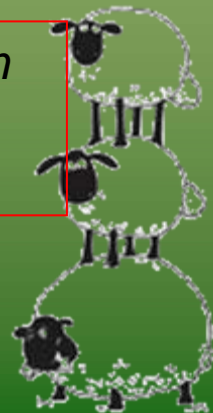
- Post-weaning phase: rapid growth, needs are very high
- Free choice feed (grains, forages, fresh water available)
- Type of feed fed in the post-weaning phase:

Concentrates 17 % crude protein (ground, hand mixed even consistency)

Young Forage Less than 34 % ADF

Consummation targeted at about 85% concentrates and 15% forages ... but in reality ...

- *Generally ... consummation of more than 90% concentrates and less than 10% forage*
- *You need to readjust...*



To limit or not at the end of finishing ?



- Lambs to fat - avoid fat deposits on carcass
 - *Heavy lamb marketing agency... pays on quality !!!*
 - *Hard classification penalties for lambs too fat*
- Males vs females, avoid fat deposits on carcass
 - *For females it is almost essential to limit !*
 - *Or again, choose to have the females slaughtered at a lighter weight than the males*



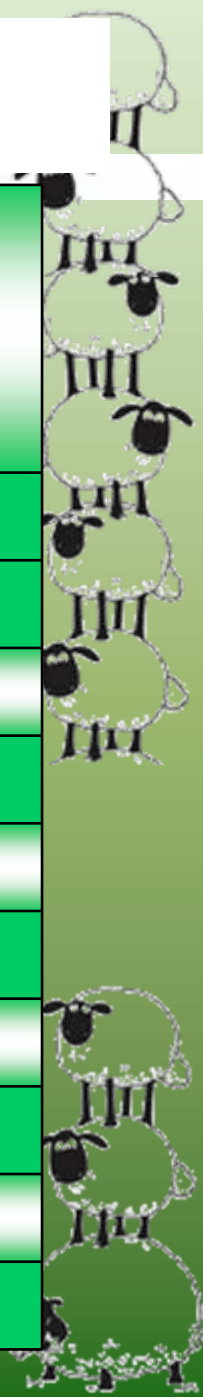
To Limit or not at the end of finishing?

- LIMIT FEEDING= Starting at 35 - 40 kg of live weight:
 - Generally, reduce concentrates feed
 - Difference between MONSIEUR and MADAME !!
 - Weigh at the start of limiting
 - Quantity served per head per day
 - Favour the consummation of quality forage
 - Verify finish on lambs



The cost of energy \$\$\$ its' impact...

Price of corn (\$/T .M.)	Feed Cost	Cost of kg Cost of kg carcass (dressed 46,5%)	% increase in feed cost
300	29,72	1,32	
		2,84	
350 (16 % + exp)	33,16	1,47	11,36 %
		3,16	
400 (33% + exp)	36,59	1,63	23,5 %
		3,50	
425 (42 % + exp) Bagged Corn cost	38,30	1,70	28,8 %
		3,65	
450 (50 % + exp)	40,02	1,78	45 %
		3,82	



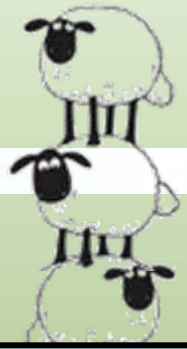
Average Gain in station of some terminal breeds

BREED	Number of rams tested	ADG on test	Level of gain for the breed
Suffolk	378	467 g/day	Very good to excellent
Hampshire	129	461 g/day	Very good to excellent
Canadian Arcott	320	414 g/day	Very good

Source, Training on genetics and conformation of breeding flock. Breeds represented: more than 100 rams evaluated (min de 3 flocks)



Profitable Lambs ... must make gains!



BREED	Number of producers	Nb lambings	Average lbs 50 day adjusted	Average lbs 100 day adjusted
Suffolk	18	844	25,0 kg	45,2 kg (~ 100 lbs)
Hampshire	10	268	22,5 kg	39,6 kg (~ 90 lbs)
Canadian Arcott	3	417	23,2 kg	34,3 kg

Adjusted weight and weight gain on GenOvis

Source, Training on genetics and conformation of breeding flock. Breeds represented: more than 100 rams evaluated (min de 3 flocks)



Mathematically it is positive, but practically what decision to make?

To help you REFLEX!

Can you control the environmental conditions
(ventilation, building, feedlot space, ...)?

Do I have the time to do the extra handling required
(more weighing)?



Mathematically it is positive, but practically what decision to make?

Do you have good technical data?

Are you controlling your death rate in lambs?

Weigh the good and the bad concerning your farm

in one word: **MANAGEMENT**

- time
- space
- work organization
- economy



Planning for heavy lamb sales... In practice!

- 1) Create groups inline with contract with the marketing agency
- 2) Calculate the ADG to evaluate the time required to obtain the sales weight
- 3) Regroup lambs by size and sex to facilitate management and feeding
- 4) Weigh lambs each week
 - ♦ Implement a good work organization

To the Point... **YOU MUST MAKE PLANS AND BE ORGANIZED TO DO THE JOB**



Mathematically it is positive, but practically what decision to make?

- Reduce the number of ewes to finish more lambs?
- Recover square footage for finishing lambs?
- Build a finishing barn?





In Conclusion

- To be profitable... it is necessary to act where it pays!
 - Question of breed (genetic) = TERMINAL BREED
 - Management of lambs
(pre-lambing, pre-weaning, finishing, sex...)
 - Feed management
(feed costs...forage quality)
 - Raising facilities
(ambient conditions, lamb health..)





In Conclusion

- To be profitable, you have to take the information and take the time to analysis and re orientate...
 - Define your market
 - Make an overview
 - Determine your objectives



Collaborators et references:

- ✓ Alimentation et régie des agneaux lourds *par Johanne Cameron (CEPOQ) et partenaires : Marie Vachon et Dany Cinq Mars Hiver 2009*
- ✓ *La Terre de Chez nous du 28 octobre 2013*
- ✓ *Agneau express de la Fédération agneaux et moutons du Québec octobre 2013*
- ✓ *Tableau résumé du programme ASRA du 25/06/2013 FADQ*



Thank you for your attention
Questions .??.?

