

# Increase the value of the 5th Quarter

Christine Walsh

Wed 8<sup>th</sup> Sept 2010

Go Green for More Profit



# Agenda

- Good but not enough
- How low can we go
- How much?
- Data drives decisions
- Variety Meats
  - Tripe
  - Hooves
  - Head Meat
- Red Offal
- Summary



## “CHANGE YOUR ATTITUDE AND YOU CAN MAKE MONEY FROM THE GUT ROOM”

A typical abattoir

**SAVE £4,000 per week**

support market, to review

The gutroom is viewed as a drain on resources, costing money with little or no returns. However by managing and controlling gutroom processes and finding new markets for your offal you can turn those costs into profit.

In the last few years abattoirs are moving away from splitting their wastes. The extra work and costs needed to categorise the waste are regarded as non-value adding and many abattoirs combine their by-products with specific risk material SRM and pay the renderers Category 1 costs. Renderers are encouraging this by providing only one bin and a fixed collection price. The strict procedures necessary to ensure the integrity of animal and Category 3 by-products are being ignored because it now all goes for incineration.

A multi species abattoir could save over £500 on a weekly rendering bill of £3000 by separating killing and gutroom fat. Further savings can be made by separating and finding markets for the edible by-products, and reducing or removing the wash down water.

# Good...but not enough

it's all about **offal**...

To enjoy a really nutritious meal why not try a variety of delicious meal ideas using beef and lamb offal.

Your guide to what's available in today's marketplace and how to buy, store, prepare and cook offal.



## Consumer Booklet

cooking and preparing **kidney**...

### Kidney

Kidneys should be plump, firm and surrounded with a thin membrane. If you buy kidneys with the suet still attached it should be creamy white in colour. Carefully peel or cut any suet away from the kidney, chop finely or whizz briefly in a food processor and use the suet as required.



1. Remove any suet and connective tissue.



2. Peel away any outer membrane.



3. Cut the kidney in half lengthwise and with a sharp knife or scissors remove the fatty central core.



4. The kidney is now ready for cooking.

10

### Individual Steak and Kidney Pies

Serves 4

Preparation time: 20 minutes

Cooking time: 2 hours 45 minutes

#### Ingredients:

450g/1lb braising or stewing steak, cut into 2.5cm/1inch cubes  
225g/8oz ox kidney, core and cut into small chunks  
15ml/1tbsp sunflower oil  
1 onion, peeled and sliced  
100g/4oz chestnut mushrooms, quartered  
15ml/1tbsp plain flour  
450ml/3/4pt good, hot beef stock  
1 sachet bouquet garni  
200ml/7fl oz stout or brown ale  
Salt and pepper  
500g/1lb 2oz prepared shortcrust pastry  
1 egg, beaten

#### Method:

1. Heat the oil in a large casserole dish and cook the beef for 3-4 minutes until brown.  
2. Add the onion and mushroom and cook for 4-5 minutes until coloured. Add the kidneys and cook for 1-2 minutes. Sprinkle over the flour.  
3. Add the stock, bouquet garni, stout and seasoning. Bring to the boil, reduce the heat, cover and cook for 2 hours until the meat is tender. Remove the bouquet garni and spoon the mixture into 4x 300ml/1/2pt individual pie dishes.  
4. Preheat the oven to gas mark 5, 190°C/375°F. Roll out the pastry and cut out four lids 1cm/1/4inch larger than the surface of each dish. Dampen the edges of each dish with a little water and place the pastry lid on top of the meat filling.  
5. Trim off any excess pastry and lightly press the edges to seal. Brush with beaten egg and bake for 35-40 minutes until the pastry is golden.  
6. Serve with fat chips and seasonal vegetables or salad.




For the nutritional values of this recipe, go to page 21



Agriculture & Horticulture  
DEVELOPMENT BOARD

# Good....but not enough

- Liver
- Kidneys
- Tongue
- Heart
- Skirt
- ECP Casings




Pan-Fried Liver and Onions with Sage

Tasty and nutritious  
*Try something different!*

Ask your butcher about **offal...**

Ask about a **FREE** guide on how to store, prepare and cook offal

it's all about **offal...**



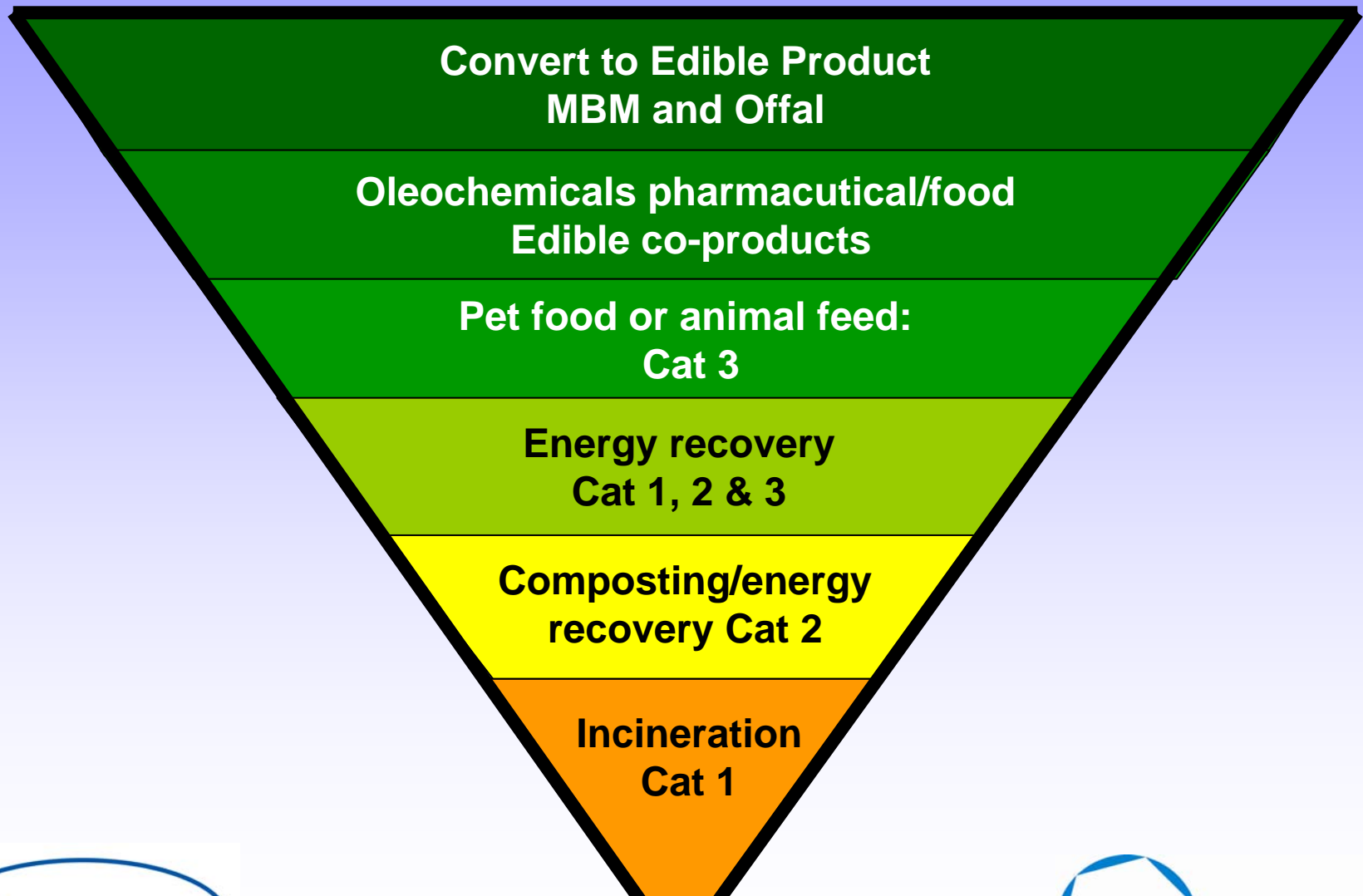
**EBLEX**  
ENGLISH BEEF & LAMB EXECUTIVE

## Animal products from livestock slaughtered for food production



Edible Products ("meat")	Edible Co-Products	Animal By-Products		
<i>Examples</i>	<i>Examples</i>	<i>Examples</i>		
<ul style="list-style-type: none"> <li>wholesale and retail meat</li> <li>carcase material used for meat recovery (e.g. MSM)</li> <li>blood, livers and kidneys used to make edible products</li> </ul> <p><b>Hearts, cheek meat, tongue</b></p>	<ul style="list-style-type: none"> <li>raw fatty tissues used for edible fat and greaves ("rendered animal fats and greaves")</li> <li>raw fit bones and hide splits for edible gelatine and collagen</li> <li>intestines used for edible casings</li> </ul> <p><b>Tripe, hooves</b></p>	Category 3	Category 2	Category 1
		<ul style="list-style-type: none"> <li>parts of animals slaughtered and found fit, but not intended, for human consumption</li> </ul>	<ul style="list-style-type: none"> <li>dead on arrivals</li> <li><i>post mortem</i> failures</li> <li>soiled or contain medicine residues</li> </ul>	<ul style="list-style-type: none"> <li>TSE positives</li> <li>SRM</li> </ul>

# Meat Waste Hierarchy



# Cattle 5<sup>th</sup> qtr 2006

PRODUCTS pre 2006		
	Wt Kg	% of live wt
Meat	281.13	47%
Cat 1	157.76	26%
Petfood		5%
Hide		7%
Gut Contents	89.45	
<b>TOTAL</b>	<b>599.98</b>	

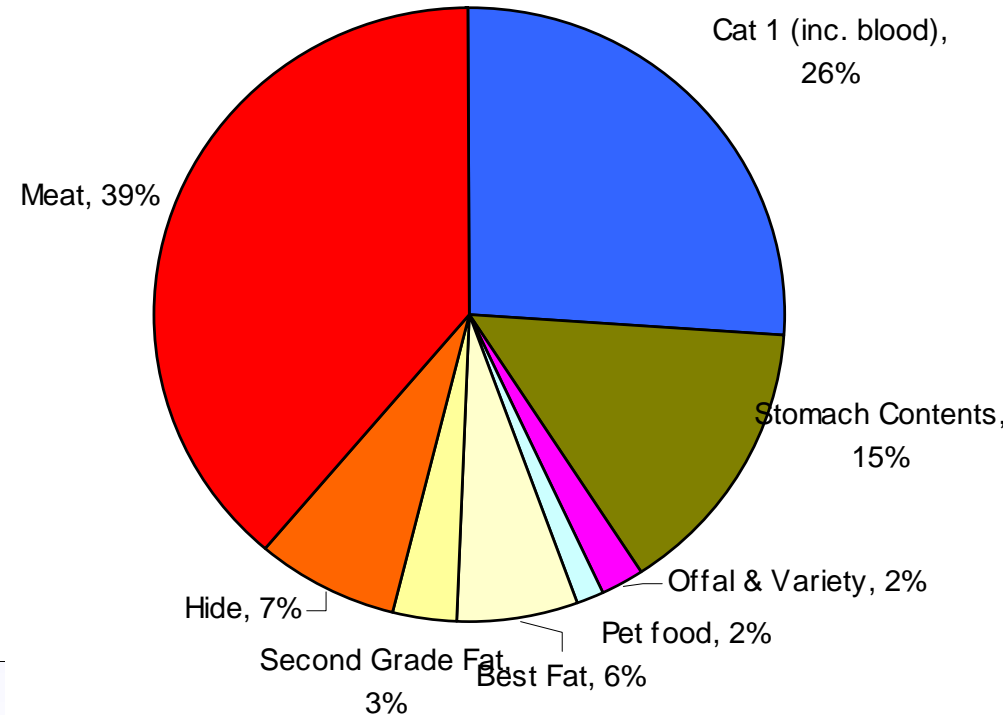
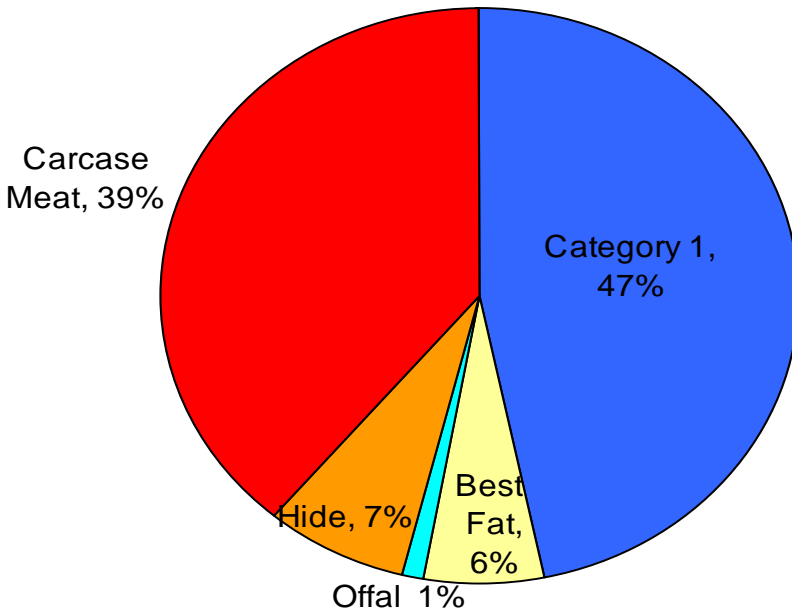
**£12.62 per head Rendering costs**  
 (based on £80/Tonne)

# The situation in 2008

## Scottish cattle abattoirs

### Carcase Breakdown Table Good Practice Scenario

Carcase Breakdown Table  
Poor Practice Scenario



# Meat Production

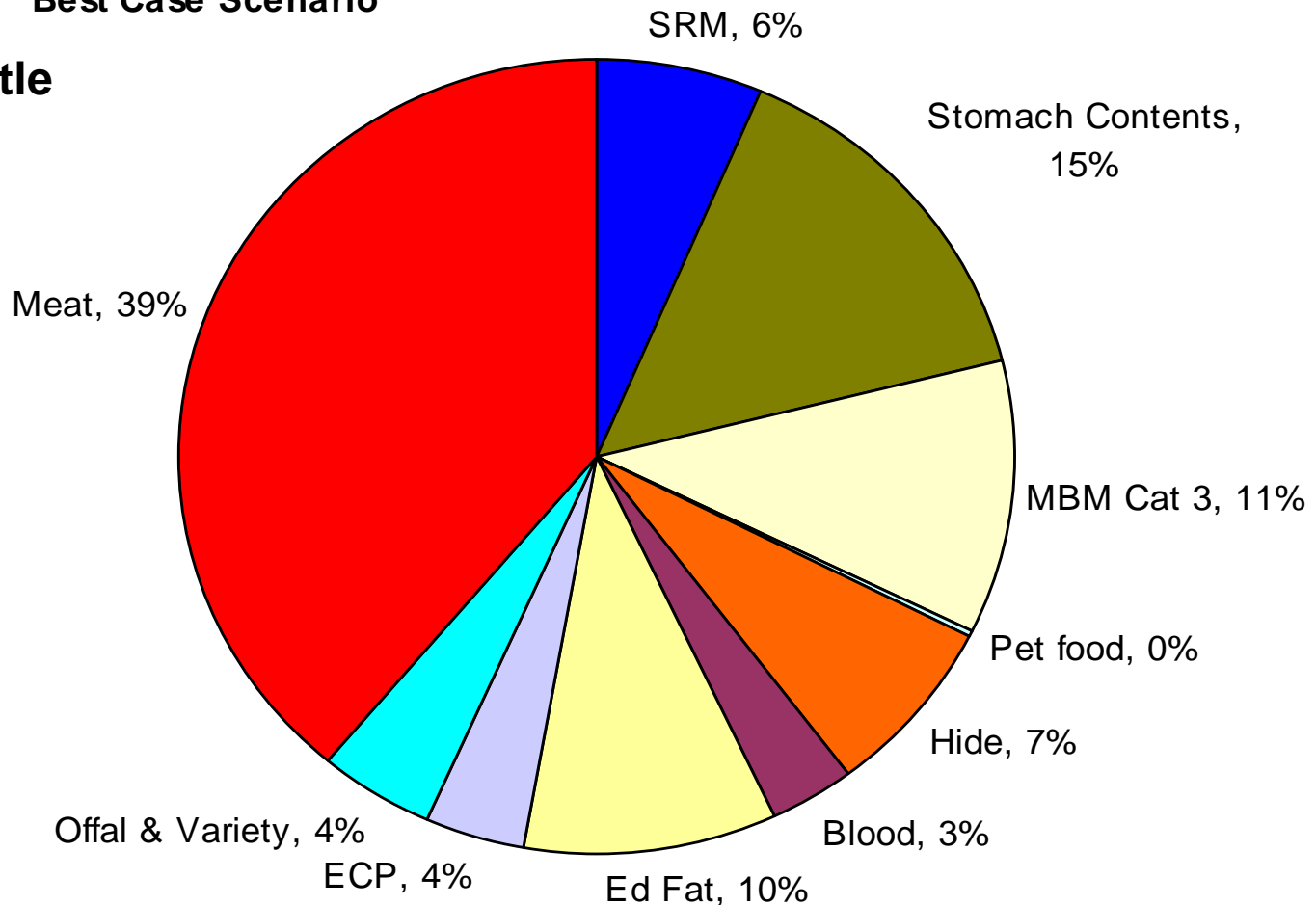
<b>UK Slaughterings</b>	<b>(000)'s</b>	<b>Carcase Meat (000)tonnes</b>
Cattle (Av CW 341.6)	2,627	850
Sheep	15,382	303
Pigs	9,031	720.3

Source: AHDB EBLEX 2010 yearbook

# How low can we go?

## Carcase Breakdown Table Best Case Scenario

### Cattle



# Cattle

2009: 2,627,000 head of cattle slaughtered in the UK			
Material	Percent	Weight (kg)	(000) tonnes
SRM Cat 1	6%	37.78	99
Stomach Contents - Cat 2	15%	89.45	235
MBM Cat 3	11%	65.84	173
Blood	3%	20.13	53
Ed Fat	10%	58.19	153
ECP	4%	23.47	62
Offal & Variety	4%	26.72	70

# Sheep

Product	% LW (42.18kg)	Weight (Tonnes)
Fat	6%	35,840
Cat 1	6%	70,757
Cat 3 - Petfood	16%	104,136
Blood	5%	29,680
Offal & ECP	9%	61,528

# Pigs

2009: 9,031,000 pigs slaughtered in the UK

Product	% LW (101kg)	Weight (Tonnes)
Carcase weight	65%	594050
Blood	4%	36982
Cat 3	12%	105187
Offal	10%	88001
Fat	2%	21145

# Offal available Vs Actual

Offal prod'n Tonnes	Theoretically Tonnes
136,000	281,000

= 48%

UK Yearbook 2010 Offal Production

Why? Kidneys, hearts,  
liver, skirt, tongues

5 out of 30+

- Pig & sheep intestines, tripe, tendons, pizzle, hooves, paddywack, aorta, ears, cheek meat, and BLOOD etc

# Data drives decisions

- Most plants monitor offal yield.
  - Based on a snapshot of average weight
- Unreliability Issues
  - Weight varies with sex age and carcass weight
  - No piece count
  - No condemnation count
- Little interrogation and corrective actions



# Data drives decisions

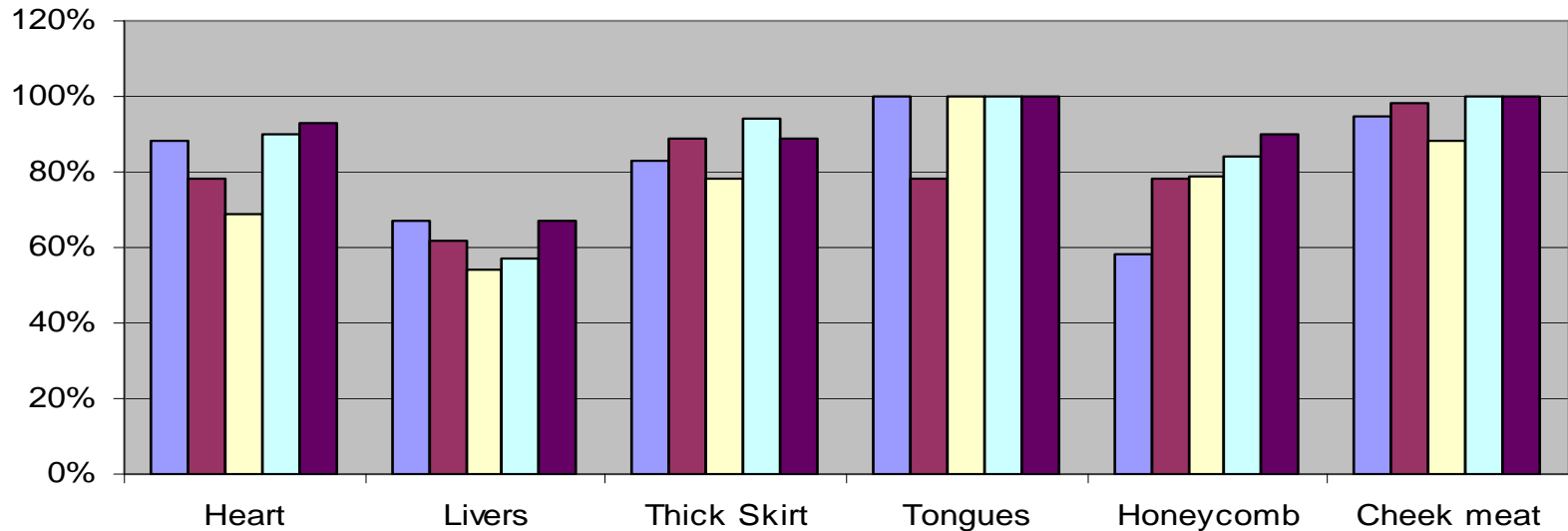
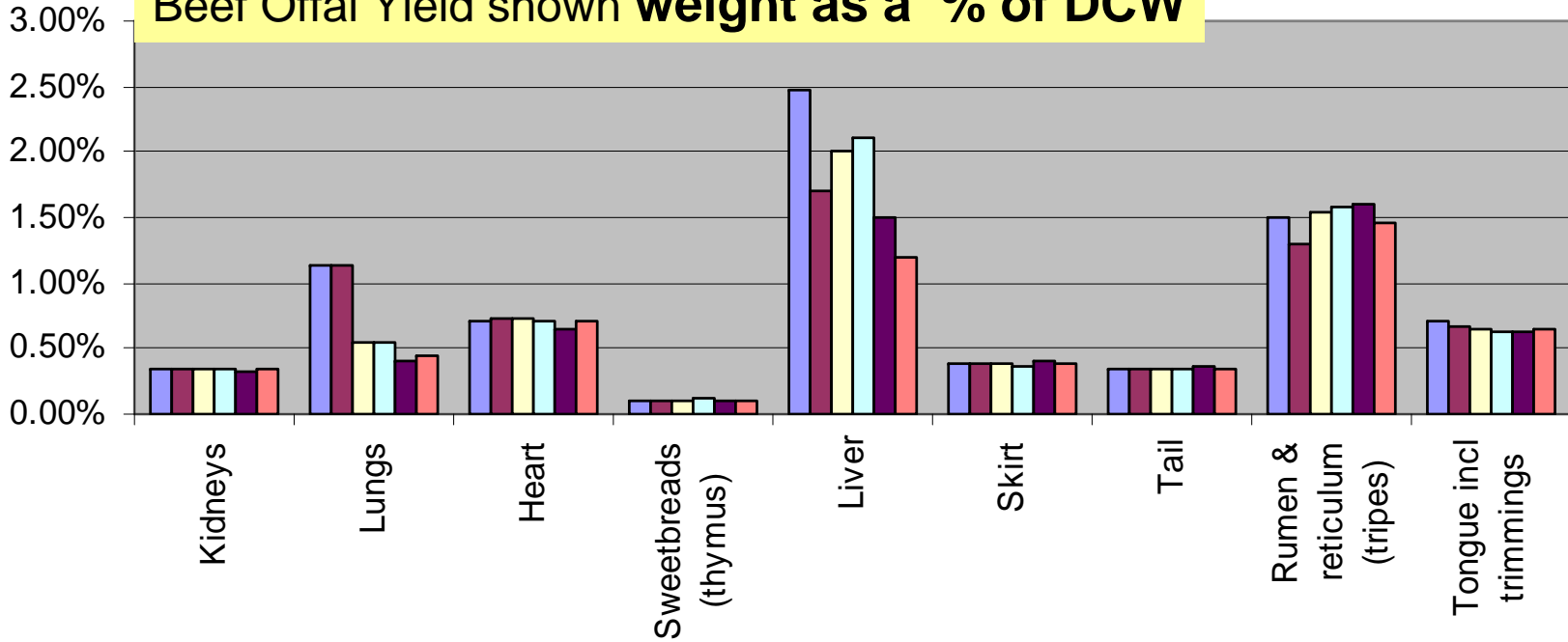
- The yields of offal products
  - How many products are you harvesting
    - Liver, kidneys, tongue, skirt, tails, sweetbread, tripe/paunch, pancreas, pizzle, 5 and 28
- The price you get paid
  - How does quality affect price and market

# Measure, graph and challenge

- Product weight
  - % of DCW
- Product count
- Actual <> theoretical  
Difference ££££
- Implement corrective actions



Beef Offal Yield shown **weight as a % of DCW**



Beef Offal Yield shown a % of pieces against number slaughtered

# Yield

- Labour

- Shortage
- Skills
- Management

- Processes

- MHS inspection
  - e.g liver, heart, cheeks
- Operator error
  - Washing & polishing tripe
  - Pulling runners
  - Tongue removal
  - Gaul bladder

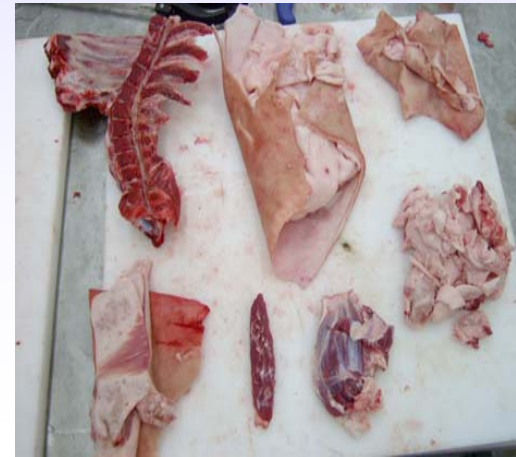


- Space & location

- Restricted collection facilities e.g. hooves, head meat
- Restricted processing facilities e.g. tripe processing
- EA issues with effluent e.g. tripe wash, runners

- Condemnations

- Liver fluke
- C Bovis



# Tripe Processing

- First wash
- Inspection
- Second wash
- Inspection
- Yield



# Heads

- Cattle
  - Remove cheeks but leave attached for MHS inspection
  - Remove mandible
  - Remove lips etc to reduce weight of head.
- Pigs
  - Skilled operation to debone
  - Retail pack
- Sheep
  - Huge export opportunity
  - Must have correct presentation



# Balancing Act

		50,000	Head p.a.
	Weight in kg	£/T	
Head	15.65	-£ 50	-£ 39,125
Head w/o sellable prod	8.91	-£ 50	-£ 22,275
Head & cheek meat incl trimmings			<b>£16,850 Saving</b>
Tongue incl trimmings	2.12	£ 1,800	£ 190,800
Ears	1.26	£ 1,800	£ 22,680
Lips	1.26	£ 1,800	£ 22,680
Non Cat 1	6.74		

**Total benefits are £377,230  
not inc. labour & packaging**

# Hooves

- Wash
- Singe
- De toenail & Inspect
- Pack
- Count weigh and record



# Price

- Quality of product
  - Tripe: over/under cooking, colour, contamination
  - Hooves: damage, charring
  - Runners: strength, length, caliber
  - Liver, heart, : inspection incisions
- Markets
  - UK, EU, far east
  - Retail, wholesale
  - Pet food, human
- Presentation
  - Retail Pack, tinned, frozen, wholesale

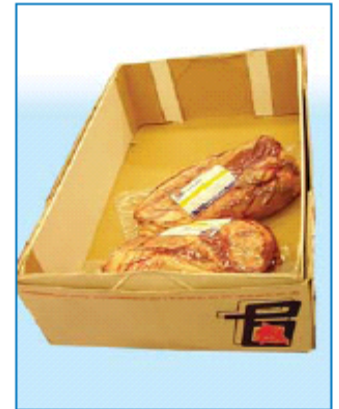
# Quality and Presentation

- Harvest operation – slaughter hall and gut room
- Rapid chilling is paramount
- Time – temperature parameters for blanched products
- Packaging

Bad



Good



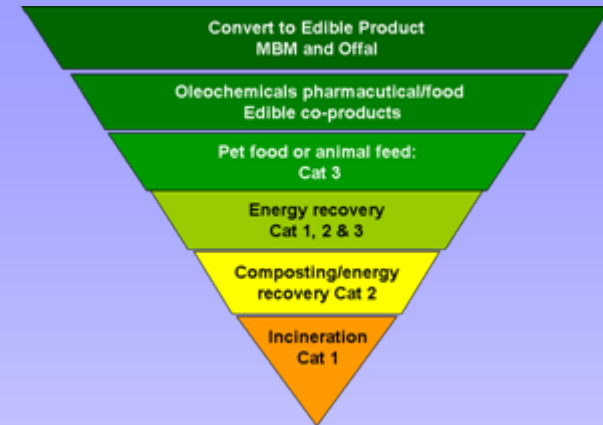
# Meat Waste Task Force

- Offering advice to abattoirs
  - Process
  - Products
  - Export opportunities
  - Environmental issues



# Summary

- Good .. But not enough
  - Reduce Costs and carbon footprint
  - Move up the waste hierarchy
- Improve your performance measure
- Increase your income
  - Yield
  - Price
- Meat Waste task force
  - More Information MLC SL & EBLEX





**Many Thanks**  
**Any Questions**