The Full Utilisation of the Sheeps Fifth Quarter: Wool

Wool

No study of Sheep Utilisation can be complete without an audit of the Wool Crop. It calls for a complex accountancy drawing on cultural, global and historical figure work, made more necessary now the venerable Wool Industry is having to adjust to major societal change – perhaps the most impactful of all that it has ever had to face in 2000 years.

The Once And Future Wool[1]

Sheep have been farmed in Britain for atleast 7000 years.

Thus it is that Wool husbandry has shaped the landscape, entered the British way of life - the surnames of its peoples - the very heart of its economy.

The Romans so admired the Britons' woollen birrus (*hoody* cloak) extensively worn by the Celtic peoples of Europe they wanted control over this wool industry and its native population of 1 million at the time of the Roman Invasion in AD 43 - up to 1.5 million when they left 400 years later.

Figure 1 The Chedworth Celtic Birrus (woollen cloak)

In 1194 the massive first part ransom of 100,000 marks for Richard I, Coeur de Lion's release was paid with 50,000 sacks of English wool.[2]

By 1297 'The barons of England, sitting in parliament, asserted that wool represented "half the value of the whole land"[3].

Contracts were being made by monastic and lay producers for the sale of the produce of their flocks, **twenty years in advance** with foreign (particularly Florentine and Lucchese) merchants societies, often in return for huge sums of liquid capital.

Before the 1348 Black Death, the UK population is estimated to have been 3.5 million.

By 1453 the plea to Parliament over the depressed state of the Wool Trade "[*T]he Wolles growyyn withynne this Reaume, here before have ben the great comodite, enrichyng and welfare of this land"* harked back to a time when **wool trading** had been the backbone and driving force of the English medieval economy.

Henceforth for the next 350 years **wool cloth making** would become the bedrock of the country's economy as clearly charted below. (Figure 2)

1 The title alludes to the supposed inscription of the marker over King Arthur's grave: HIC IACET ARTHURUS REX QUONDAM REXQUE FUTURUS — "Here lies Arthur, the once and future king."
2 Dr Adrian Bell, Chris Brooks and Paul Dryburgh *The English Wool Market c 1230-1327*
3 Prof. Postan

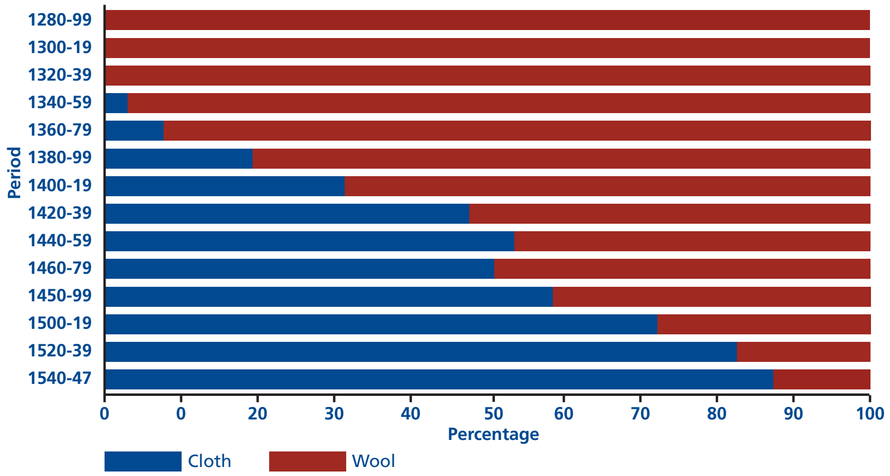

Figure 2 Exports of English wool and cloth, 1280-1547 (Cloth expressed in sacks of wool) (Sources: Corus-Wilson & Coleman; Lloyd)

In 1750 at the start of the UK's industrial era the population was round 5.5 million growing to 11 million by 1800. By then the reasons for rearing sheep of the early middle ages, firstly for milk to provide cheese for winter food; then wool, then soil fertility and then meat, had irrevocably given way first to wool then by the late 19^{th} Century, to meat to feed a mainly urban population which by 1910 had more than tripled to 37 million. (2009 we eat 5.9kg of lamb per adult).

During this period, King Cotton, arriving at Liverpool Docks from the New World created a new vibrant cotton textile manufacturing industry based round Lancashire, displacing wool as the Nation's fabric of choice and in turn being surplanted during the 20^{th} Century by successive waves of oil derived and wondrous synthetic fibres like nylon (short for New York/London) later polyester and lycra.

Meanwhile throughout the expanding British colonies and dominions, motherland sheep rearing and wool growing traditions were adapted, subject to climate and terrain, to ways of making a living by generations of emigrants from these Isles.

Australia developed into a **fine** wool economy by crossing breeds like Lincoln Longwool with Spanish (N.African?) Merino noted for producing lightweight garments. Also Cheviot, Romney and Border Leicester.[4]

New Zealand, developed a more dual purpose sheep economy (meat and wool) favouring **strong** wool breeds like the Romney and Cheviot leading to the emblematic Drysdale, whose wool is greatly used in carpet making.

UK emigrants accompanied by sheep breeds they knew, went on to found sheep economies in South America,[5] South Africa and other parts of the British Empire.

4 For further (excellent) information www.wool.com www.ballaratweb.net www.sheepworld.co.nz
5 In 1896 a Lincoln ram exported to Buenos Aires realized a record 1450 guineas approx.£90,000 in today's values.

Fast forward to the 21st Century the relative market shares of World fibre production is represented in figure 3 . Note Wool's share - 1.7% of the total (1,175 million kg)

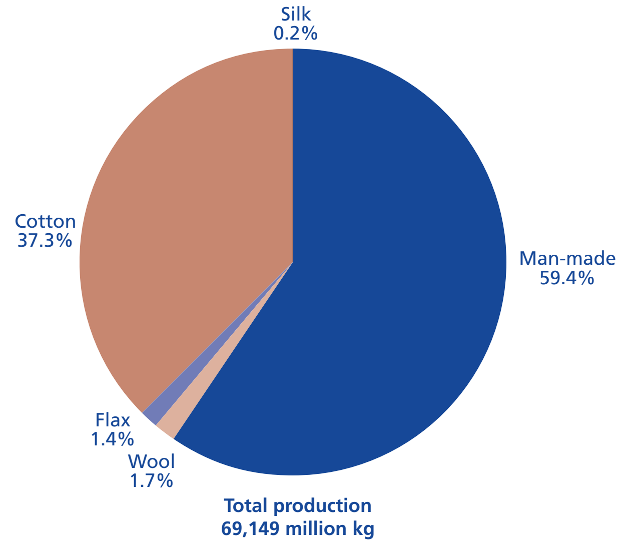

Figure 3 World fibre production 2007
Source: British Wool Marketing Board

During the 20 year period 1990 to 2007, World Wool Production dropped by 37% as the following diagram shows, putting the UK in 8th position at an average of 37 million kg per annum (from 72 million kg in 1990)

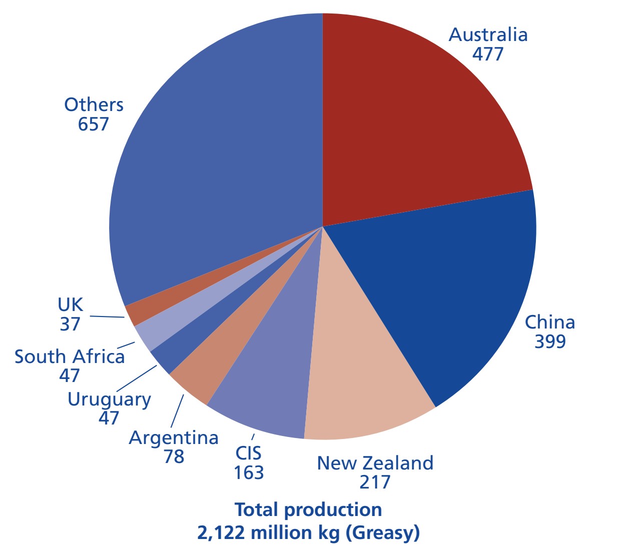

Figure 4 World fibre production 2007
Source: British Wool Marketing Board

It is against this backcloth that "a quiet revolution in the countryside" is reported to be taking place "as the price of a sheep's fleece has fallen to as little as 30p [per kg], farmers are turning to wool-less [Easycare] animals to increase their profit margins".[6] The article goes to report Farmer Iolo Owen, 77 as saying "there is no market in wool. Synthetics have taken over, and I don't like shearing sheep. It's very stressful for them to have all their wool removed in one minute. My [Easycare] sheep shed their hair naturally over six weeks." Farmer Owen has a flock of 3000 sheep. Many hundreds of fellow sheep farmers have begun to put this meat first, wool-less regime into practice.

How can it be that after 2,000 years during which time the UK's Wool staple was at the heart of the nation's well being, is now in 2009 considered of so little value by so many in the Sheep Industry?

The situation like the Industry itself is complex and it falls to the British Wool Marketing Board to hold the ring.

6 The Times, Saturday May 23rd 2009, Valerie Elliot, Countryside Editor article entitled *Easycare sheep help farmers to cut their losses as shearing fails to turn in a profit*

The Role of British Wool Marketing Board.

The British Wool Marketing Board (BWMB) is a farmer run central marketing system for UK fleece wool which collects, transports, stores, sells by auction, trains[7] and undertakes media relations, education and certain sales/marketing activities. It therefore holds a pivotal role in the UK's Sheep Industry.

The BWMB controls the licensing of the British Wool Shepherd's Crook brand which allows manufacturers across the world to use the logo on product that contains a minimum of 50% of British Wool grown on British breeds in the UK as part of the total fibre content. The functions of the BWMB are unique to the UK.

At their inception the Board operated a government guaranteed payment price system irrespective of auction price. In 1992/93 season this system was withdrawn by MAFF and from 1993 onwards farmers have received actual auction prices less the Board's running cost per grade.

The BWMB state that the farmer in 2009 received on average 35p/kg, well above the subsidy rate in years 1990/91 and 1991/92. The chart below illustrates how the system worked then and now.

		Guarantee p/kg	Actual p/kg	Subsidy P/kg	Subsidy %
1990/91	Wool Price	125.00	61.80		
	Marketing Costs	32.50	32.50		
	Coring, Carriage etc.	-	-		
	Producer Payment	92.50	29.30	63.20	216%
1991/92	Wool Price	120.00	63.20		
	Marketing Costs	35.00	35.00		
	Coring, Carriage etc.	-	-		
	Producer Payment	85.00	28.20	56.8	201%
2007/08	Wool Price	-	71.4		
	Marketing Costs	-	30.5		
	Coring, Carriage etc.	-	5.0		
	Producer Payment	-	35.9	Nil	Nil

Figure 5 Guaranteed Wool Price. Source: British Wool Marketing Board

7 For example in best practice and sheep shearing to reduce farmer dependence on travelling teams of Australasian shearers who at 80p to £1 per sheep sheared by their own skill and effort make a good living from UK farmers.

British Wool is sold in 22 sales a year. The system is totally transparent and open to the whole world to buy. Prices achieved at auction are comparable to other meat/wool producing countries and in fact achieve, in European terms, (probably) the highest prices.

In the 2008/9 season there were 43,000 growers registered with the BWMB - every grower with four and more sheep must register with the Board.

The UK total Wool Clip is today around 31 million kg per annum making the **average** size of Clip, 700 kg.

Historically this compares with an **average** size of Clip in 1950/51 season of 285 kg from 92,200 registered growers.

By 1990/91 the **average** size of wool clip had risen to 562 kg from 94,200 growers producing a peak year total Clip of 53 million kg.

Thereafter the total Wool Clip has tended to fall - noticeably after the disastrous 2001 Foot and Mouth outbreak – in line with the national flock size, down from the peak year 1999 -2000 of 44.6 million sheep to 33.1 million in 2008 – 09 also reflecting the effects of the Single Payment Scheme (SPS) introduced in 2005 and due to finish in 2012 when EC farming will be decoupled from government subsidy

In summary and in round terms over the last five decades:

- there are fewer growers (50% down);
- there is a smaller national flock (down 25%);
- the total clip has decreased (down 25%)
- But the average wool yields per grower are up (about 25%) pointing to significant productivity gains.
- Over the last decade one sheep produced 1 kg of wool (handled) compared with an average of 1.20 kg in earlier decades – note a sheep's clip once processed turns in 0.5 kg of clean wool. The rest, lanolin, mud, muck etc does not go to auction!

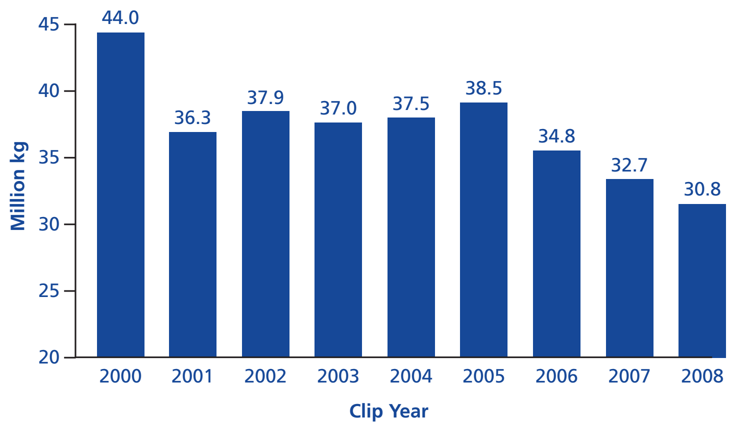

Figure 6 UK Wool Production. Source: British Wool Marketing Board

The Future Wool.

The British Wool Clip sells readily in a number of established markets, principally for Carpet Making where it is considered to be the best fibre in the world.

The BWMB flow chart below shows just how important the carpet industry is for the UK wool industry.

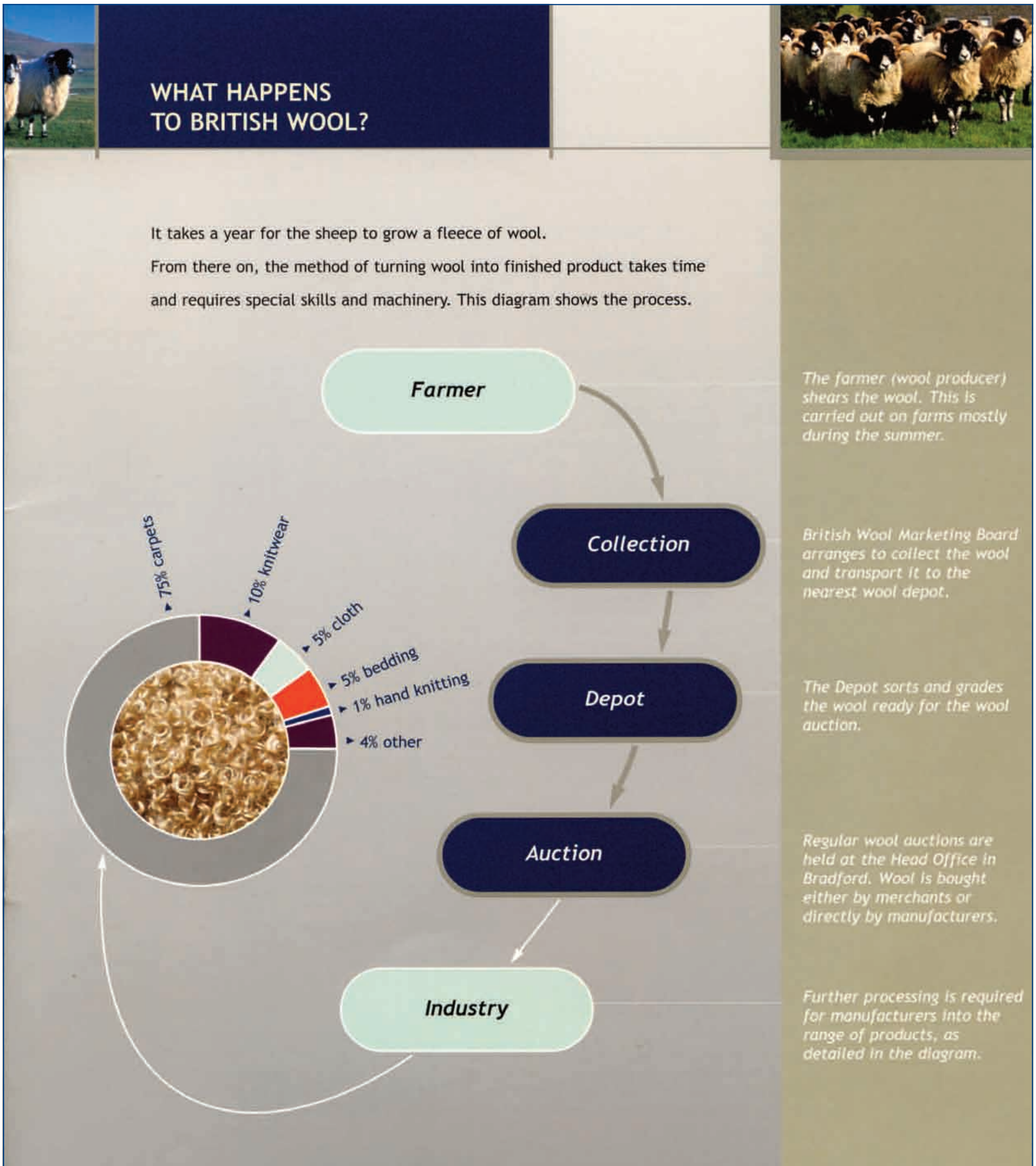

Figure 7 British wool markets

Over the last 2 years, to the list of markets should be added, growing interest in Wool as a home insulation material to reduce energy consumption – it is green and home grown. But will probably remain a small although significant outlet for lower grade (lower cost) wool.

So if the Full Utilisation of the Sheeps' Wool Crop has been attained, it could be argued, what more is there to be said but to congratulate all the Growers and the BWMB on a remarkable performance and to hold up their husbandry as a shining model for other parts of the UK sheep Industry to emulate.

Except, as has already been observed and Farmer Owen as spokesperson for many hundreds of Sheep Farmers, has made abundantly clear - they are not covering their costs let alone making a profit.

For a sizeable percentage of the 43,000 wool producers and several million sheep, the wool-less or wool shedding Easycare breeds route will never be an option. The UK's unique stratified sheep system[8] developed over the passed century is predicated on wool breeds adapted to the rigours of terrain and climate in their region where certain wool breeds and wool types only will flourish.

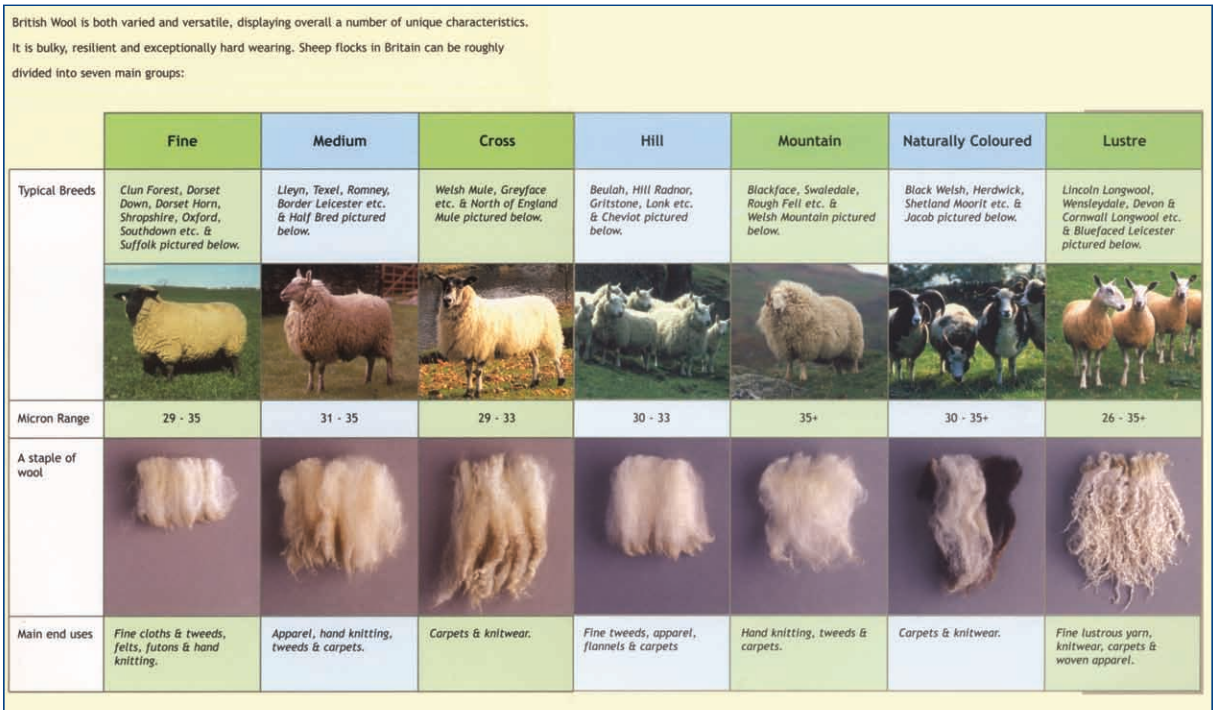

Figure 8 Main British wool breeds and types - There are over 60 different breeds

The Global view

To achieve the doubling of average BWMB prices for their Clip – from the 2007/8 35.9p per kg to say 72p – required by wool growers to get some sort of a return on their investment, the UK Industry has to move with the rest of the World's wool producing nations.

As number 8 in the ranking well behind Australia, New Zealand (NZ), China and CIS (formed out of the former Soviet Union) the only recourse is to alliance, particularly with NZ as a fellow **strong** wool producing nation.

The Wool World in turn, is in thrall (weighing in at 1.7%) to the World Fibre market split as in figure 3 above.

The Man-made fibre sector, supplying 59+ % of the total is in pole position.

8 For review of UK Sheep Stratification System see RAC/Rumenco Report 4 by Dr John Vipond *Understanding The Evolving Role of Sheep* Chapter 4 page 18.

However oil price increases witnessed round the World over recent months, with more to come as accessible oil reserves are used up, will reduce synthetic fibres' cost head room, making wool prices presumably more competitive[9].

Cotton with a problematic environmental track record (one pair of cotton denim trousers requires the equivalent of one standard tanker load of water to produce from field to finish) may well similarly find its cost headroom reduced, again allowing wool to be a marginally more competitive fibre.

These cracks in the fibre market though welcome do not begin to address the fundamental point which is that even if wool production was able to 'let rip' it would not come near fulfilling the fibre levels required to supply present demand in a world of 6+ billion people; and most certainly not in a world with 9 billion mouths to feed expected by mid-21st Century.

For UK wool growers and the Industry as a whole, prospects actually seem set fair to good.

Can Wool Rebound?

It is current Sheep Industry folklore that sheep numbers will decline further as farmers after 2012 find government subsidies pulled away from beneath them.

The amazing diversity of sheep breeds and wool types – so graphically illustrated below - which are a unique feature of the UK landscape, are bound to come under more pressure as Common Pasture land[10] takes the strain of an increasing population's growing requirements and Easycare /Rissington meat - only sheep breeds proliferate; among many other pressure points.

The volume and share of these key wool types is shown here.

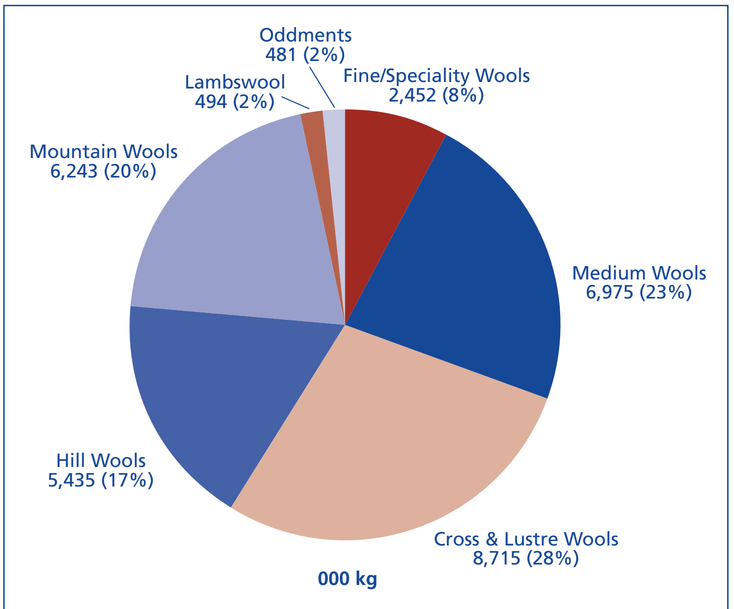

Figure 9 Analysis of Main wool types
Source: British Wool Marketing Board

9 BP's massive find under the Gulf of Mexico (September 2009) is 32,000 ft down and will take 6 years to tap into. In global terms it is not expected to alter petroleum's balance of power.

10 400 years ago 50% of England was open common land, now it has shrunk to just 3%

In 2005 the picture for British Wool Exports reveals the EEC is far and away our biggest market. The shares have not changed appreciably since.

The UK Wool Industry is the very model of a mature and powerful economic engine in the safe hands of its chauffeur the BWMB. On the surface sedate as a swan, underneath paddling like fury. Perhaps a little too set in its ways. But still able to put on a turn of speed when called for.

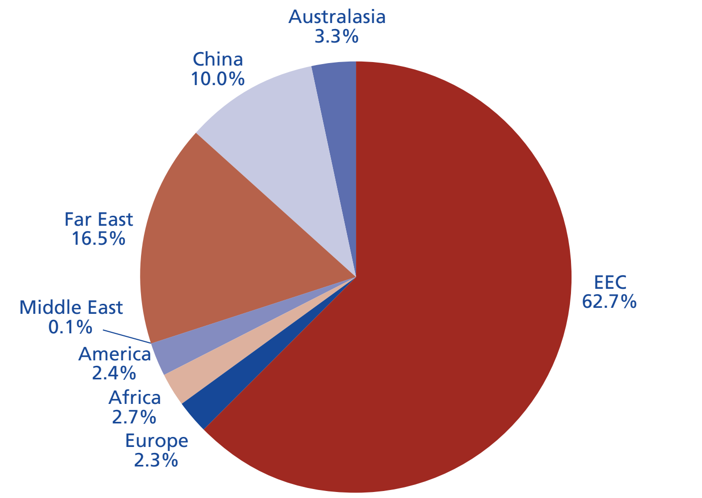

Figure 10 British Wool Exports 2005 (Including re-exports)
Source: British Wool Marketing Board

To secure its development into the 21st Century many Industry observers stress the need to find ways to increase margins for all in the long wool supply chain which currently are oriented towards the retail level; in the case of wool growers this needs to be done urgently and could be via-ed through the existing structure of the BWMB.

The British Wool Industry needs to work in conjunction with its major global partners, Australia and New Zealand to:

- press the environmental agenda where wool is unrivalled as a natural, sustainable, biodegradable fibre.
- re-enforce wool as **the** quality fibre for fashion.
- explain and re-invigourate the various Woolmarks, in particular the British Shepherds Crook logo.
- connect with younger people as the up-coming homemakers.
- position Wool as a superior, better performing and preferable fibre to manmade synthetic alternatives.

In a recent TV celebrity show Vivienne Westwood the doyen of the Fashion World since the 1960's and still a much respected creative force to be reckoned with, made an impassioned plea to her audience **not to buy** so many clothes since this is bad for the environment and will hasten global warming. Rather young people, she urged, should save up, buy less but better quality and be prepared to pay more……perhaps this is just the dictum the wool industry should apply to leverage its position to a new high ground as the economy picks itself up after the recent financial melt-down.

This theme is also explored in a recent Financial Times interview - reproduced in figure11 - with Loro Piana a noted designer specialising in lightweight wool fabrics.

Through the pen of Godfrey Deeny, Mr Piana persuades readers how and why wool is the best fabric for Summer suiting, which may appear counter-intuitive to many.

So what is a micron?

What is a lightweight fabric?
"We consider a fabric light when it weighs no more than 170gsm [grams per sq metre]. Previously, a wool fabric of 200gsm was considered light" says Pier Luigi Loro Piana of the fashion house and fabric producer Loro Piana

What is a fine fabric?
Basically the same as a lightweight one. "Fabrics made with wool yarns measuring 17-12 microns." Says Anna Zegna, image director at Ermenegildo Zegna.

How light can a fabric be?
There are wool-only fabrics that weigh just 110gsm, but few tailors can work with something so light unless it is treated or mixed with something else. Loro Piana offers a cashmere and silk fabric weighing only 100gsm. Specially processed, it has the strength necessary to withstand weaving, but it is so light that a kilogram of this yarn would extend for around 570 kilometres.

Don't light fabrics crease more easily?
No. Good-quality light fabrics actually crease less easily than heavier versions because their fine threads allow them to bounce back into shape more quickly.

What's a 'mixed fabric?
Mixing or blending threads produces fabrics that combine the best of all worlds. "We've found that wool and silk is an excellent mix in terms of quality, wearability and lightness," says Zegna. "it also produces a special sheen. A wool and mohair mix also has a richness to the touch. Linen can be harsh, and it creases easily but blend it with wool and it becomes softer. Add cashmere and it develops a new personality. Mixing fabrics is like fusion cooking."

What does 'worsted' mean?
"This relates to the preparation for the spinning of the yarn," says Benjamin Jones of weavers Savile Clifford, based in Yorkshire. "There are two types of yarns. Woollen yarns have individual fibres that are roughly drawn in the same direction and can be twisted to produce a relatively thick and open yarn. In worsted yarns, all the individual fibres are combed into exactly the same direction, which allows for finer and stronger yarns to be spun. Worsted is by far the superior way to produce yarns suitable for lightweight fabrics"

What is best for summer?
"Inn summer the fabric should be breathable and light and soft to the touch so that the suit can be worn without lining both the jacket and the pants to achieve maximum lightness and comfort," says Loro Piana. "Wool, as opposed to linen and silk, has much better crease-resistance and so is preferable."

www.loropiana.com: www.zegna.com

Figure 11 *Financial Times* article by Godfrey Deeny emphasising the importance of wool in light fabrics - 27 June 09

In conclusion

To rebound, the British Wool Industry in concert with its major trading partners and by utilising the expertise of **all** its stakeholders from farmer to retailer, needs to re- explore and explain Wool's unique selling proposition confidently and with passion to a new generation of young customers in readiness for a time later in this century when the 'once and future Wool' and the Great UK Sheep Industry may have to be centre stage again in the British way of life.