



WATSON SEEDS

# SALTIRE MIXTURES

• Reliably Good Seed •

2017



# FOREWORD

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The past calendar year has been somewhat eventful and whilst it is not prudent to discuss politics it is very difficult to avoid getting wrapped up in the consequences of the major political events which have taken place in 2016.

Our agricultural industry is renowned for being adaptable, innovative and inventive and we are undoubtedly facing lots of change in the next few years so we must be prepared to take advantage of new opportunities which present themselves as the Brexit process unfolds.

We offer a personal and efficient service with the best seeds and seed mixtures on the market tailored to the individual needs of our customer's.

Our close collaboration with the plant breeders and grass seed producers that supply us from across Europe, developed over decades of friendship and business, has helped us procure our seeds for this years mixtures at very competitive prices, despite the weakness of the pound. We are passing this benefit onto you our customers. This of course is not being done at the expense of the quality of the varieties selected for the mixtures.

We are delighted to be associated with customers who are winning awards and being recognised for their achievements in

farming and it is satisfying to be involved with some of the top performers in the industry. It is their success that might well help in leading the way to taking on the challenges which face our industry in years ahead.

May I take this opportunity to thank all our customers for their support, it is greatly appreciated.

Peter J. Addie



# VARIETY ASSESSMENT

















All the grasses and clover varieties used in the Saltire Mixture range have been approved by independent trials conducted by the SAC. From this data the key factors we consider in variety selection include the following attributes:

- Yield: Annual, seasonal, cutting & grazing
- Persistence: Ability to compete & survive
- Quality: Energy value, mid season D Value & WSC content
- Winter Hardiness:

SRUC 1st  
Choice

NIAB  
Recommended

Ground Cover

		SRUC 1st Choice	NIAB Recommended	Ground Cover
<b>Italian</b>				
Meribel	Very high yielding with very good D values and ground cover for an Italian.			A
Gemini (T)	Capable of producing high D values for first and second cuts. Good yields throughout the season.			B
<b>Hybrid</b>				
AberEve (T)	Excellent spring growth with high first cut D values.			A
Hymer (T)	A good variety with the highest D value in the second cut.			A
<b>Early Perennial</b>				
Kimber	Produces excellent yields under grazing and cutting regimes.			B
<b>Intermediate Perennial</b>				
Bree	One of the best varieties for winter hardiness. Excellent mid and late season growth.			B
Premium	A similar variety to Bree with good all round characters.			B
Calibra (T)	Very high D value under grazing management.			C
Eurostar (T)	Excellent all rounder with very high D values under conservation, both first and second cut.			B
<b>Late Perennial</b>				
Pastour	From the same stable as Foxtrot with similar attributes.			C
Mezquita	High yielding variety with good persistency and sward density, excellent for grazing.			A
Twymax (T)	Has a very dense sward for a tetraploid. Produces excellent quality first and second cut silages.			B
AberCraigs (T)	Very high yielding variety under conservation with excellent first cut.			C
<b>Timothy</b>				
Comer	Best spring growth of the Timothys, with excellent ground cover and autumn performance.			A



# SALTIRE MIXTURES

Mixture	Duration (Years)	Mainly Cutting	Dual Purpose	Intensive Grazing	Extensive Grazing	Sowing Rate (Kg/Acre)
S1	1-2					14
S2	2					14
S3	3-4					14
S4	3-4					14
S5	3-6					14
S6	3-6					14
S7	6-10					14
S8	6-10					14
S9	3-6					15
S10	6-10					15
S11	5-7					15
S12	3-6					10

The proportion of varieties and species used in every Saltire Mixture has been determined after the most careful consideration of farming conditions in Scotland.

The duration of a grass mixture is mainly dependent on two factors: the component varieties and the management regime. Varieties giving higher yields can often be less persistent so there is a balance to consider between these two important characteristics.

See the chart above for a guide to mixture selection. However, we recommend you consult your distributor, agent or our office for advice on which mixture best suits your needs.

If we are forced to make any substitution of varieties in our Saltire Mixtures owing to demand, we will ensure that we only use the best alternative varieties available.

## SALTIRE ROTATIONAL CLOVER BLEND (SRCB)

Varieties	Leaf type
Crusader	Medium
Violin	
Alice	Large

## SALTIRE PERMANENT CLOVER BLEND (SPCB)

Varieties	Leaf type
AberPearl	Small
Crusader	Medium
Violin	

# SALTIRE 1

A fast growing ley, which can be sown in the spring or autumn to produce large crops of silage.

Variety	Type	%
Meribel	Italian Ryegrass	85.72
Gemini (T)		
Hymer (T)	Hybrid Ryegrass	14.28

Tetraploid variety (T) content – 57%.

# SALTIRE 2

Produces high yields of silage and is more persistent than S1 due to the inclusion of intermediate perennials.

Variety	Type	%
Meribel	Italian Ryegrass	34.64
Gemini (T)		
AberEve (T)	Hybrid Ryegrass	34.64
Hymer (T)		
Calibra (T)	Intermediate Perennial Ryegrass	26.43
S RCB	White Clover	4.29

Tetraploid variety (T) content – 81%.

*'This field was established as a barley undersow in spring 2015 with a seed rate of just 10kg/acre. After the barley was combined, the grass was used to finish lambs and then ewes were tupped on it before it was shut off around the new year. Lambed ewes were turned on to it in March 2016 at up to 6 ewes/acre with no other feed before it was shut off in mid April. It was cut twice, with the first cut producing 12ME 75D silage to feed to the ewes in the run up to lambing.'*

**Robert Brockie, Wormiston, Eddleston, Peebles.**



# SALTIRE 3

Highly productive dual purpose mixture which will produce large cuts of silage and quality grazing

Variety	Type	%
Bree	Intermediate Perennial Ryegrass	58.21
Premium		
Calibra (T)		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	25.72
Twymax (T)		
Comer	Timothy	10.71
S RCB	White Clover	5.36

Tetraploid variety (T) content – 50%.

# SALTIRE 4

Due to the inclusion of early grasses, this ley is well suited to light land and requires early grazing. Adaptable to either a cutting or grazing regime.

Variety	Type	%
Kimber	Early Perennial Ryegrass	14.28
Bree	Intermediate Perennial Ryegrass	41.78
Calibra (T)		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	26.44
Twymax (T)		
Comer	Timothy	12.14
S RCB	White Clover	5.36

Tetraploid variety (T) content – 39%.

# SALTIRE 5

Highly versatile dual purpose mixture, which will produce two large cuts of silage and quality grazing.

Variety	Type	%
Bree	Intermediate Perennial Ryegrass	31.78
Premium		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	51.43
AberCraigs (T)		
Twymax (T)		
Comer	Timothy	11.79
S RCB	White Clover	5.0

Tetraploid variety (T) content – 40%.

# SALTIRE 6

Our most popular Saltire Mixture. Contains persistent varieties ensuring good yields for cutting and grazing over many years.

Variety	Type	%
Bree	Intermediate Perennial Ryegrass	41.08
Premium		
Calibra (T)		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	41.06
Twymax (T)		
Comer	Timothy	12.14
S RCB	White Clover	5.72

Tetraploid variety (T) content – 41%.

# YARA GRASS PRIX

Congratulations to Drew and Margaret Wilson, Greenhead Farm, Rescobie, Forfar on winning the Yara Grass Prix competition in 2016.

The Yara competition is a challenge between leading beef and dairy farmers from the UK and Ireland competing to achieve the highest energy yield from grass. The winner is the grower with the highest value grass measured as a combination of Metabolisable Energy yield (ME per ha) and Crude Protein yield summed over the first two silage cuts.

A cumulative yield over the first two silage cuts of just over 62 T FW/ha was achieved. With a dry matter averaging 33%, this is equivalent to 21 T DM/ha. The quality was good too with ME averaging 10.4 MJ/kg and CP 16.1% this gives a cumulative energy yield of 218,699 MJ/ha and a protein yield of 3,385 kg/ha. The silage is fed to finish over 700 bought in store cattle over the winter along with home grown barley fed as a Total Mixed Ration.

The Wilsons' secrets of success? Routine soil testing, to identify nutrient requirements; regularly re-seeding, always into a soil of pH 6.2 to 6.3; keet the drainage right, monitor compaction, and graze hard with sheep before getting them off early so the sward can increase cover again to protect it going into the winter.

*'I put down our success in the Yara Grass Prix competition partly to the quality of the grass seed mixtures supplied by Watson Seeds. The advice and support that I receive from Alex Eggo is greatly appreciated.'*

**Drew Wilson, Greenhead Farm, Rescobie, Forfar, Angus.**



Johnny presenting Drew with a bottle of Watson Seeds' 'Afore Ye Sow' whisky at AgriScot.





*'Here at Dalbeallie we have used Saltire 6 mixture for many years. We have always found it to be very good yielding and our cows graze on it very well.'*

**Danny McWilliam, A J Robertson, Dalbeallie, Knockando, Morayshire.**



*'We are continually delighted with the production and persistence of our Saltire Mixtures from Watson Seeds. Our live weight gains have equally been highly impressive.'*

**Stuart Moore, Mains of Balhall, Menmuir, Brechin.**



# SALTIRE 7

Excellent grazing mixture for long term performance

Variety	Type	%
Bree	Intermediate	25.0
Calibra (T)	Perennial Ryegrass	
Pastour	Late Perennial Ryegrass	55.72
Mezquita		
AberCraigs (T)		
Twymax (T)		
Comer	Timothy	12.14
S RCB	White Clover	7.14

Tetraploid variety (T) content – 39%.

# SALTIRE 8

This mixture combines the benefits of intermediate and late perennial ryegrass with highly palatable timothy and white clover. It can be grown for silage or hay.

Variety	Type	%
Kimber	Early Perennial Ryegrass	10.72
Bree	Intermediate Perennial Ryegrass	28.57
Calibra (T)		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	42.85
AberCraigs (T)		
Twymax (T)		
Comer	Timothy	10.72
S RCB	White Clover	7.14

Tetraploid variety (T) content – 41%.

# SALTIRE 9

Provides good growth for early grazing or cutting. The ley tolerates dry conditions due to the deep roots of cocksfoot.

Variety	Type	%
Hymmer (T)	Hybrid Ryegrass	13.33
Kimber	Early Perennial Ryegrass	6.67
Bree	Intermediate Perennial Ryegrass	30.01
Calibra (T)		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	26.65
Twymax (T)		
Comer	Timothy	10.0
Lidacta	Cocksfoot	6.67
S PCB	White Clover	6.67

Tetraploid variety (T) content – 50%.

# SALTIRE 10

A long term ley that combines perennial ryegrass with drought-resistant cocksfoot. Cocksfoot needs frequent grazing.

Variety	Type	%
Kimber	Early Perennial Ryegrass	6.67
Bree	Intermediate Perennial Ryegrass	33.34
Calibra (T)		
Eurostar (T)		
Pastour	Late Perennial Ryegrass	26.66
Twymax (T)		
Comer	Timothy	10.0
Lidacta	Cocksfoot	13.33
S PCB	White Clover	10.0

Tetraploid variety (T) content – 37%.

# SALTIRE 11

Designed to produce high D Value silage. Has a very dense leafy sward. Contains no timothy.

Variety	Type	%
Bree	Intermediate Perennial Ryegrass	13.33
Pastour	Late Perennial Ryegrass	86.67
Mezquita		
AberCraigs (T)		
Twymax (T)		

Tetraploid variety (T) content – 40%.

# SALTIRE 12

Suitable for overseeding or direct drilling into an old sward to improve quality & productivity.

Also available with clover

Variety	Type	%
Hymer (T)	Hybrid Ryegrass	10.0
Calibra (T)	Intermediate Perennial Ryegrass	40.0
AberCraigs (T)	Late Perennial Ryegrass	50.0
Twymax (T)		

Tetraploid variety (T) content – 100%.

To save on the cost of ploughing and especially the effort of stone picking, the field pictured with David and Neil, was being re-established with a new grass sward without ploughing. The stage in the photograph is just after the old sward has been destroyed with glyphosate. David is using his Duncan drill to sow the grass mixture at 15.2 kilos per acre, the 0.2 kilos is Tyfon stubble turnips, which provides an extra feed to accompany the grass mixture for a few grazings.

*'We have always been pleased with the performance of the Watson's grass mixtures, which we have used for three generations on this farm.'*

Neil Austin, Borland of Girthon, Gatehouse of Fleet, Castle Douglas. Neil pictured above with contractor David McCubbin.



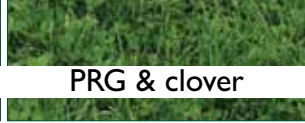
# SOIL MATTERS



**It's worth testing your soil routinely and in particular prior to reseeding**

Watson Seeds have tested hundreds of samples throughout 2015 & 2016 and the table below shows the percentage of soils that were found to be below the ideal nutrient levels for grass and the impact it has.

**ACIDIC SOILS ENCOURAGE THE COLONISATION OF WILD UNPRODUCTIVE GRASSES**



**Wild grasses**

**PRG & clover**

<b>pH</b>	<b>58.8% below 6.0</b>	<b>A low pH results in inefficient utilisation of NPK and poor overall plant health</b>
<b>Phosphorus</b>	<b>37.7% below Index 2</b>	<b>Phosphorus deficiency in the soil causes poor root development and plant establishment</b>
<b>Potassium</b>	<b>59.4% below Index 2-</b>	<b>Potassium deficiency has a profound influence on plant health and leads to inefficient nitrogen uptake</b>
<b>Magnesium</b>	<b>1.4% below Index 2</b>	<b>High levels of soil magnesium inhibits potassium availability and impacts on good soil conditions</b>

**All the above deficiencies are severely reducing potential animal performance and profit - unlock the potential on your farm.**

If you would like more information please contact the office on 01368 840655

## SOIL AERATION

Throughout the prolonged wet spring of 2016 it was evident that soil was becoming compacted on many farms. Even grazing sheep were poaching grass, compacting the ground and swards became quite muddy and open if they were densely stocked. The end result of any excessive tramping by stock or use of machinery when soils are too wet is that compaction occurs. This essentially expels oxygen from the root zone and nutrients don't pass from the soil to the plants as efficiently as they should. Compaction also limits the activity of soil microbes and invertebrates and the whole subterranean ecosystem is drastically affected.

This can be corrected by subsoiling or aeration. Assuming conditions are suitable, aeration breaks up the compacted soil which oxygenates the soil enabling the soil microorganisms and invertebrates

to function properly. It also assists the natural drainage of the soil and boosts grass production significantly. We have seen some excellent examples of positive improvement after soil aeration and would strongly recommend it where we know soils have become compacted.



A waterlogged field pictured in spring 2016



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