



Effective Nutritional
Management of Livestock this
Spring & Summer

Livestock nutrition is just resource management

*“The process of **planning, scheduling and allocating** resources to specific production units to **optimise** their effectiveness to achieve **greater organisational goals**”*



Matching pastures with requirements

Matching production goals with requirements & availability

Lush green pasture

- High protein
- High energy
- High digestibility
- Some mineral deficiencies

Brassica

- High protein
- High energy
- High digestibility
- Some mineral & trace element deficiencies & antagonisms
- Anti-nutritional factors

Lucerne

- High protein
- High digestibility
- Lower energy
- Some mineral deficiencies
- Low roughage
- Bloat in cattle
 - Red gut

Mid - flowering pasture

- Mid protein
- Mid digestibility
- Low energy
- Depreciated mineral content
 - Limited production

Dry pasture

- Low protein
- Low digestibility
- Low energy
- Low minerals
- Low vitamins
- Maintenance at best

Stubbles

- Low protein
- Low digestibility
- Low energy
- Low minerals
- Low vitamins
- Controlled weight loss

Temperate pasture curve

DIGESTIBILITY
(%)

ENERGY
MJ ME/kg DM

PROTEIN
(%)

80



Active Growth (Green)

Late Winter/Early Spring

High Production

12

26

70



Early Flowering

Early to Mid Spring

10

20

60



Mid-Flowering

Mid Spring/Early Summer

Moderate Production

9

14

Late Flowering (In Head)

8

12

50

Dry Leaf & Stalks

Mid Summer

Maintenance of Dry Stock

7

10

40

Dry Stalks

Stubbles & Straw

Weight Loss

5

4

TIME

Class of animal and production goal



Pre-joining Ewe 60kg
Merino (maintenance)

Energy
10MJME/day

Protein
8%



Early Pregnant Ewe
(day 60, maintenance)

Energy
10MJME/day

Protein
8%



Recently Weaned 50kg
Ewe (100g/hd/day)

Energy
11MJME/day

Protein
10%



Pregnant Single Ewe
(day 140, maintenance)

Energy
15MJME/day

Protein
10%



Lactating Single Ewe
(maintenance)

Energy
23MJME/day

Protein
14%



Growing 40kg Weaner
(200g/hd/day)

Energy
15MJME/day

Protein
14%

What determines livestock performance on pasture?

- Dry Matter Intake

- The amount of feed consumed minus its water content (pasture = 20% DM)
- Higher quality = higher digestibility = more consumed
- Dry matter intake is king
- DMI is also the hardest variable in the diet to predict

- Quality

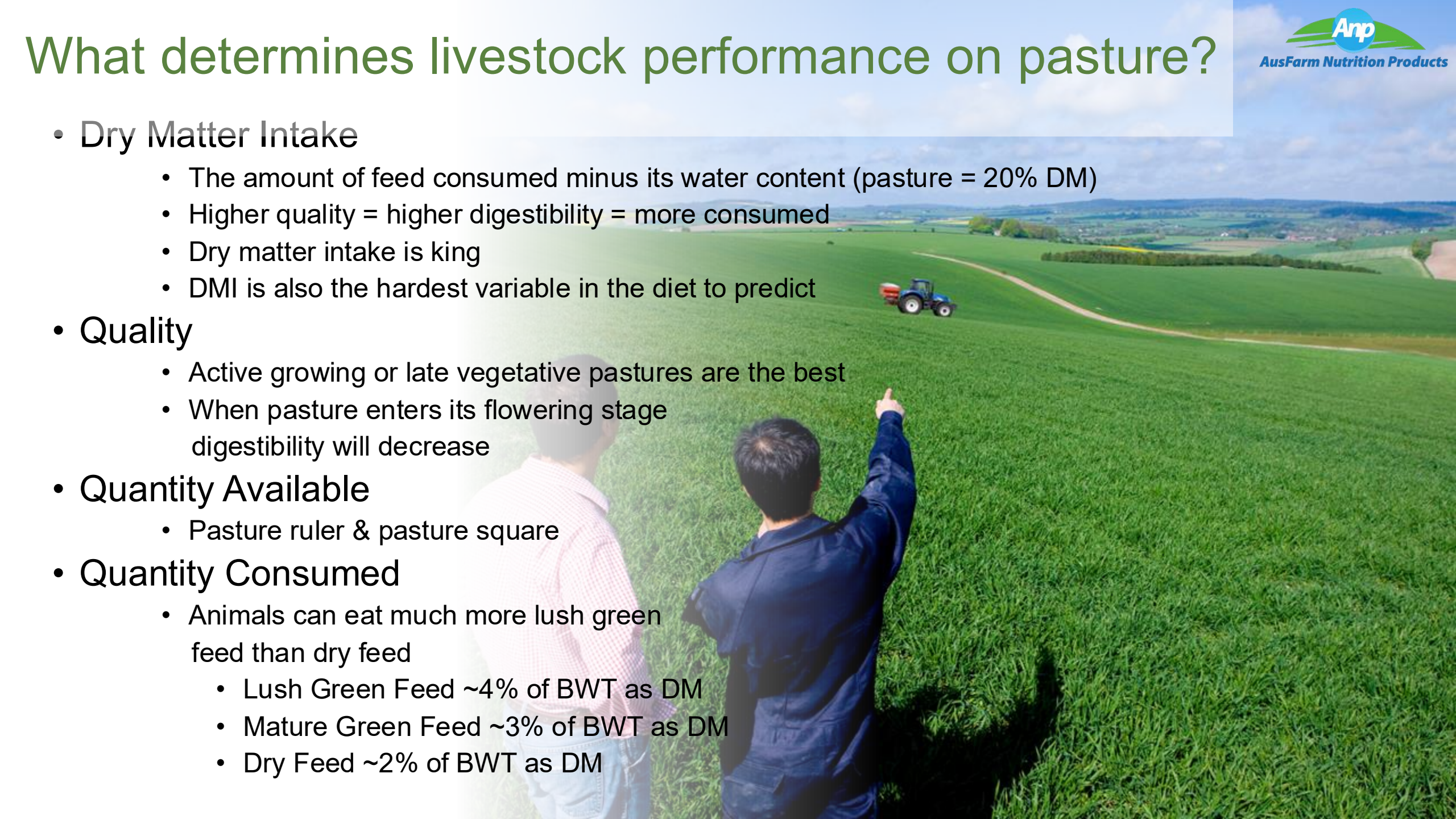
- Active growing or late vegetative pastures are the best
- When pasture enters its flowering stage digestibility will decrease

- Quantity Available

- Pasture ruler & pasture square

- Quantity Consumed

- Animals can eat much more lush green feed than dry feed
 - Lush Green Feed ~4% of BWT as DM
 - Mature Green Feed ~3% of BWT as DM
 - Dry Feed ~2% of BWT as DM



Allocate the best feed to your high producing animals

High Production

High Energy
High Protein
High Digestibility
Mineral Deficiencies



High Production

High Energy
High Protein
High Digestibility
Mineral Deficiencies
& Anti-Nutritional



High Production

Mid Energy
High Protein
High Digestibility
Mineral Deficiencies



Moderate Production

Low Energy
Mid Protein
Mid Digestibility
Low Minerals



Low Production

Low Energy
Low Protein
Low Digestibility
Low Minerals



Weight Loss

Low Energy
Low Protein
Low Digestibility
Low Minerals



Maintaining growth rates on declining pasture

- If QUANTITY is limiting DMI
 - Backfill the diet with another high-quality source of feed
 - Usually grain or pellets
- If QUALITY is limiting DMI
 - Increase nutrient density of the diet by supplement feeding
 - Supplement feed with grain, legumes or pellets
 - Quantity of grain/pellets fed is determined by pasture quality
 - ↑ grain = ↑ COP, but also PERFORMANCE
- Considerations when feeding concentrates on pasture
 - How are you going to feed?
 - How much are you going to feed?
 - How often should you feed?
 - Risk of ACIDOSIS – Ensure risk free grain feeding
- Feed Additives
 - Supplements with feed additives can drive rapid liveweight gain
 - Trace minerals, vitamins, buffers, ionophores & pro, post and pre-biotics

You can grow animals on any type of feed, but must dietary correct deficiencies



Growing 40kg Weaner
on Lush Green Grass

High Energy
High Protein
High Digestibility
Mineral Deficiencies

Dilute protein
Slow passage rate
Effective supplementation
Signs of maturity



Growing 40kg Weaner
on Brassica

High Energy
High Protein
High Digestibility
Mineral Deficiencies
& Anti-Nutritional

Dilute protein
Slow passage rate
Effective supplementation
Photosensitisation/
Mortality



Growing 40kg Weaner
on Lucerne

Mid Energy
High Protein
High Digestibility
Mineral Deficiencies

Increase Energy
Dilute protein
Slow passage rate
Effective supplementation
Quantity/ Red Gut



Growing 40kg Weaner
on Mature Green Grass

Low Energy
Mid Protein
Mid Digestibility
Lower Minerals

Increase Energy
Correct protein if req.
Improve digestibility
Effective supplementation
Signs of maturity



Growing 40kg Weaner
on Dry Grass

Low Energy
Low Protein
Low Digestibility
Low Minerals

Increase Energy
Correct protein
Improve digestibility
Effective supplementation
CONFINEMENT
FEEDING



Growing 40kg Weaner
on Stubbles

Low Energy
Low Protein
Low Digestibility
Low Minerals

Increase Energy
Correct protein
Improve digestibility
Effective supplementation
CONFINEMENT
FEEDING

Planning utilisation of maturing feed will be the difference between winning and losing this season

Lush green pasture

- High protein
- High energy
- High digestibility
- Low minerals especially Mg and Na

Mid flowering pasture

- Mid protein
- Mid digestibility
- Low energy
- Low minerals
- Limited production

Dry pasture or stubbles

- Low protein
- Low digestibility
- Low energy
- Low minerals
- Low vitamins
- Maintenance at best

Sept

Oct

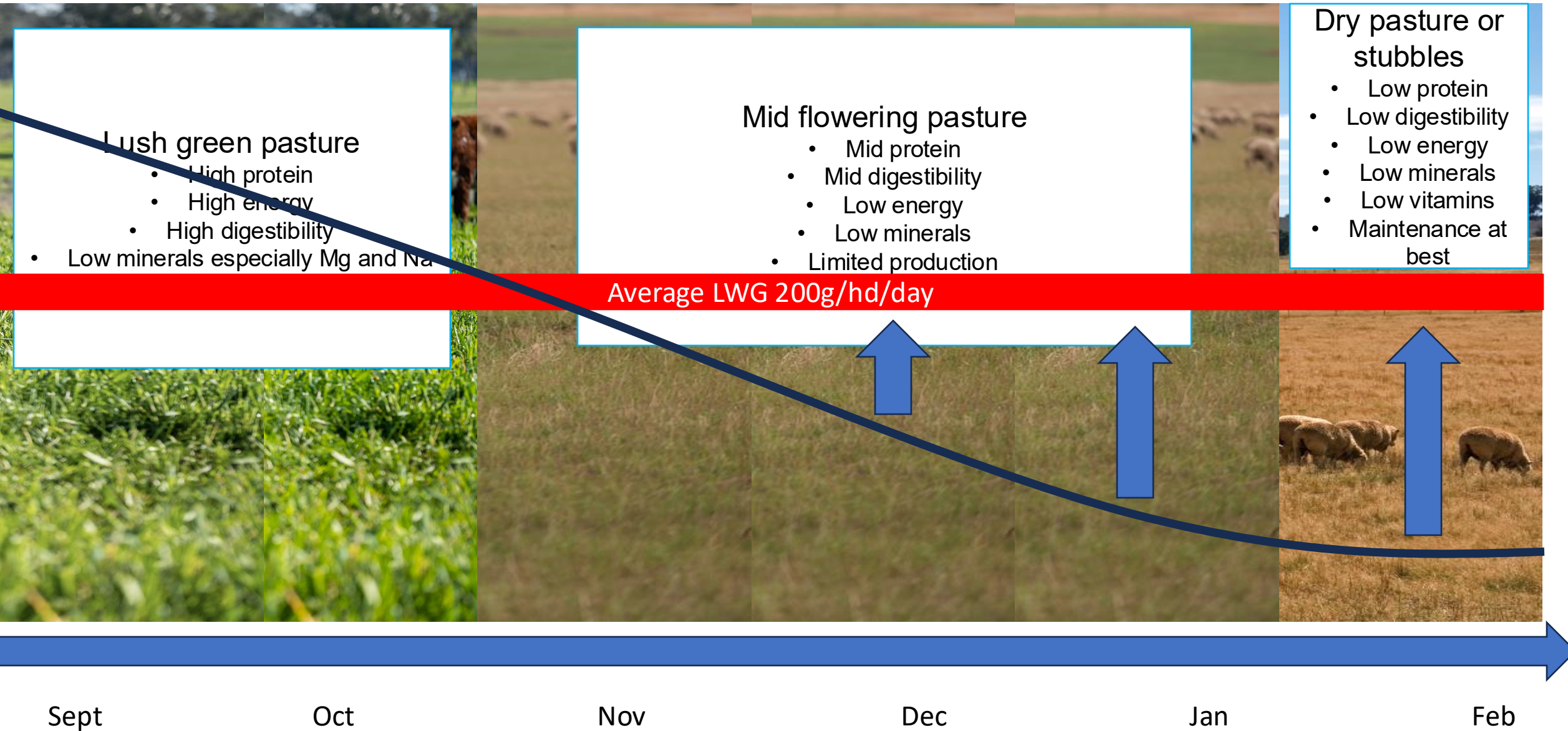
Nov

Dec

Jan

Feb

Make the best use of feed early to reduce chasing weight on poor quality feed later



Mineral and grain supplementation can make a huge difference to production in late spring

Lush green pasture

- High protein
- High energy
- High digestibility
- Low minerals especially Mg and Na

Mid flowering pasture

- Mid protein
- Mid digestibility
- Low energy
- Low minerals
- Limited production

Dry pasture or stubbles

- Low protein
- Low digestibility
- Low energy
- Low minerals
- Low vitamins
- Maintenance at best

Average LWG 200g/hd/day



Sept

Oct

Nov

Dec

Jan

Feb

Rapid liveweight gain can be continued by grazing lucerne in summer. Don't forget to correct energy & minerals

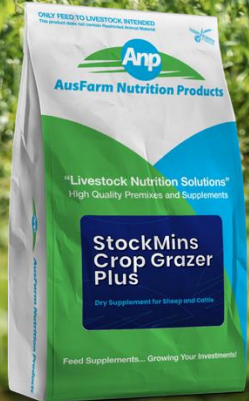
Lush green pasture

- High protein
- High energy
- High digestibility
- Low minerals especially Mg and Na

Lucerne

- High protein
- Low energy
- High digestibility
- Low minerals
- Low roughage
- Red Gut in lambs

Average LWG 200g/hd/day



Sept

Oct

Nov

Dec

Jan

Feb

Likewise, liveweight gain can be continued by grazing brassicas. Lookout for anti-nutritional factors

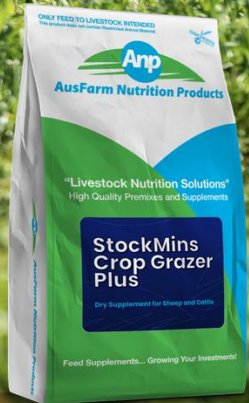
Lush green pasture

- High protein
- High energy
- High digestibility
- Low minerals especially Mg and Na

Brassica

- High protein
- High energy
- High digestibility
- Low minerals
- Low micros
- Anti-nutritional factors

Average LWG 200g/hd/day



Sept

Oct

Nov

Dec

Jan

Feb

Summary

- Identifying and acting on where the best feed is and how it is best utilised is a huge on-farm value add to your enterprise.
- Understand what is required of your different stock classes, prioritise and plan accordingly
- Beat the dry with growers by supplementing feed and minerals as the quality of the feed turns off.
- Macro, micro minerals and vitamins are all required for optimal animal health and productivity, ANP supplements are formulated to meet your animals requirements

