



Standing cereals/failed crops – grazing over summer and feed budgeting

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Summary

- There is no need for farmers with cereal crops to sell breeding stock
- Astute farmers, with attention to feed budgeting, can take the opportunity to buy extra breeding stock at lower prices than in recent years
- Use hay sparingly, and only when you exhaust all dry feed. 100g/day roughage is adequate.
- Drought lots/feed lots **must be used once all paddock feed has been used** – to maintain ground cover – but are they really necessary if you have 2 – 3 t/ha dm of leaves, stalks and grain in standing/failed crops available?
- Grazing management is essential to ration feed and maintain 100% ground cover – especially over summer.
- Do a feed budget.
- Livestock management is precision farming - pay attention and observe what is happening to stock, soil and pasture. Do not put stock in a paddock and forget about them. I recommend shifting them every two weeks – to prevent camping and minimise wastage. You don't have to leave stock in a paddock till all feed is trampled/flat on the ground.
- Condition score all ewes off shears/October, and weigh ewe weaners at same time.
- Set weaner weight targets for May next year and feed accordingly between now and then. Monitor weaners by weighing 10% of mob every four weeks. Weaners not doing well should be separated.
- Divide ewes into two mobs – those less than condition score 3 and those above score 3.
- Monitor condition of 10% of each ewe mob every 4 weeks, and move fatter ewes to the high fat score mob, and move the tail to the “skinny” mob.
- Young ewes can be grazed with the “skinny” mob.
- 10% of your stock will cause you 90% of your problems – monitoring will enable problems to be fixed before they cause losses.

Grazing sequence – best feed first.

1. Weaners.
2. Then maiden ewes
3. Then “skinny” ewes on supplementary feed on next best pastures, or following weaners.
4. Finally ewes in good condition to clean up – ie get last pick.

It should be possible to have **at most** two mobs of ewes, one mob of maidens, and perhaps two mobs of weaners over summer.

It may be possible to put the maiden ewes with the skinny ewes, and run one mob of weaners.

Never put hungry sheep into a crop – fill them up on a good paddock, or on hay, first. They should be fully vaccinated against enterotoxaemia.

Even after they have adjusted to the paddock, there may be problems with grain poisoning as the crop matures. This can be minimised by moving sheep regularly. Get them out of the paddock at the first sign of scouring.

If there is very little paddock feed, put sheep in a drought lot and keep paddock cover until April or May. Sheep must be moved regularly and moved whilst there is still feed in the paddock they have come from – hungry sheep must never be put into paddocks containing heads of grain. With each grazing, the sheep are only removing about 30% of the feed on offer.

Feed Budget

Step 1 – work out what your stock require.

Example 1000 x 60 kg ewes including maiden ewes, and 300 weaner lambs

Start budget October 1st and finish June 1st = 240 days

DSE rating for ewes including maidens = 1.2

A dse rating sheet is available from Rural Solutions SA offices

Allow **1.5 kg dry feed dry matter/day/DSE** ie 1.8 kg per animal/day. This includes some wastage - see box below.

1300 sheep x 1.8 kg/day = 2340 kg dm/day x 240 days = 561,600 kg.

Assumptions

Standing crop has a mean ME of 7.2 MJ/kg and a mean NDF of 60% - so sheep are eating 2% LW/day = 1.2 kg dm x 7.2 MJ ME = 8.6 MJ ME/day.

Allowance = 1.8 kg dm/animal/day. This includes 1.2 kg eaten plus 0.6 kg wastage (wastage = 50% intake)

Must do Feed Test to check.

Weaners and maidens may need extra protein.

Step 2 – determine how much feed you have.

Cut 10 x 0.1m² quadrats from a transect across a crop, and dry a sub sample in a microwave.

Assuming there is 3000 kg/ha in total (common for many failed crops across cereal areas in SA this year)

Deduct 1000 kg/ha for ground cover.

Feed available = 2000 kg/ha dm

561,600 kg ÷ 2000kg/ha = 280 ha

Therefore 280 ha should be able to carry 1300 sheep for 240 days – leaving 1000 kg/ha residual pasture for soil cover!

But – if you put 1300 sheep on 280 ha and leave them there, the feed will last only 83 days, as each animal will waste about 4 kg.

4 kg dm wastage/day + 1.2 kg dm intake = 5.2 kg/day

561,600 kg ÷ 5.2 kg ÷ 1300 sheep = 83 days

This wastage is based on practical observations, and paddock recordings of livestock grazing dry feed, including stubbles, over many years. However actual data from farmers' paddocks is always welcome.

1300 sheep eating 1.2 kg dm/day for 83 days = 460 kg dm actually eaten out of 2000 kg/ha available.

In reality the sheep will be in very good condition after 83 days, as they will have picked out all the “good” bits, but parts of the paddock will be over grazed and bare after 83 days eg hills and around water points.

With a rationed grazing system, sheep will eat a higher proportion of poorer quality feed (they have to!)- but they will lose weight gradually over a longer period. Hence the need to have a grazing sequence based on sheep condition and energy requirements, and to monitor sheep condition.

How do make the feed last for 240 days? Answer - Some form of rotational grazing.

There are no fixed rules about paddock size, mob size or duration of grazing in each paddock.

I suggest a minimum of 4 paddocks/mob and shift them every two weeks. In the example below I have used 5 paddocks/mob.

Here is an example.

Assume there are already 3 paddocks totalling 280ha, and an extra 7 paddocks will be created = a total of 10 paddocks.

Assume there will be three mobs.

Mob 1 – 500 skinny ewes and maidens

Mob 2 – 300 weaners

Mob 3 – 500 fat ewes

There are two rotations – 5 paddocks each rotation

Rotation one – weaners 2 weeks, followed by fat ewes 2 weeks in each paddock x 5 paddocks = 10 weeks to complete rotation. Rotation is then repeated for another 10 weeks. Each grazing they are removing 720 kg/ha dm ($800 \text{ sheep} \times 1.8\text{kg} \times 14 \text{ days} \div 28 \text{ ha} = 720 \text{ kg/ha dm/grazing}$)

Rotation two – skinny ewes and maidens – 2 weeks each paddock = 10 weeks to complete rotation. Rotation is then repeated for another 10 weeks. Each grazing they are removing 450 kg/ha dm ($500 \text{ sheep} \times 1.8\text{kg} \times 14 \text{ days} \div 28 \text{ ha} = 450 \text{ kg/ha dm/grazing}$)

Sheep in rotation one will run out of feed before sheep in rotation two, so paddock feed and stock condition must be monitored, so that stock requiring extra feed can be moved into a better paddock, or hand fed if required – assuming there is still ground cover.

Some protein supplements may be required for younger stock.

Once there is less than 100% ground cover and 1000 kg/ha feed on offer, sheep should be removed and put in a drought lot, or into other paddocks.

Regular monitoring of sheep condition, ground cover and feed availability is vital for efficient grazing to work.

Cost benefit

Cost - fencing \$8000 including two wires, electric fence unit, solar panel, tread in spacers, reels, strainers earth kit, troughs and pipe and labour

Savings – 150 days drought lot feeding x 1300 sheep x 14c/day = \$27,300

Cost of drought lot feeding is based on a daily ration of 400g barley @ \$220/t and 100g hay @ \$180/t plus \$68/t for labour for feeding out, stock lime and minerals.

If a farmer has livestock, or can purchase stock, it makes no sense to use the crop for hay for use on own farm. This will **cost** \$63/t for a 2t/ha crop (as per spread sheet sent earlier) = **\$35,280!** However there may be a need for a small amount of hay following the preparation of a feed budget. In addition, attention to grazing management may enable stock to be carried on a smaller area, thus allowing some crop to be cut and possibly sold.