

# Future options - strategies and policies for managing drought

13 December 2019

---

## Purpose of the document

The following document has been prepared as a contribution to the Drought Resilience Funding Plan with the aim of introducing ideas for developing long-term strategies for managing drought that will help to empower producers and their rural communities to plan for a manage drought with a sense of control.

In the Preface to the Consultation Draft emphasises the need to reassess strategies to strengthen drought resilience and consider incremental as well as transitional and transformational changes to build capacity to deal with drought.

The suggestions in this document are not intended for dealing with the current situation, where farmers and regional communities require immediate assistance, but rather for longer-term planning where new approaches may help to build greater resilience.

## Background

[REDACTED]

[REDACTED]

Strategies and policies for improved management of drought will be complex and will require widespread collaboration in order to set agreed goals and then implement the plan and deliver the outcomes. It is important to bear in mind that even when droughts are widespread, there are always significant areas of Australia enjoying good seasonal conditions and there is always scope to move animals for agistment as an alternative to transporting supplementary feed.

The following points are initial thoughts that will require testing and development with a broad range of people directly affected by drought. They are my personal suggestions and do not represent the views of any organisation.

## Discussion points for a drought management strategy

The key elements are considered to be the following:

1. Recognise the early signs of drought and respond early;
2. Maintain and improve infrastructure during the drought for the recovery phase; and
3. Ensure that resources are available to implement a recovery plan.

These elements are discussed below.

## **1. Recognise the early signs of drought and respond early**

*Prevent overgrazing and avoid costly feeding.* Most producers with a disciplined approach to cropping will only sow a crop when there is sufficient soil moisture or when there is a highly predictable rainfall pattern. For grazing enterprises the decision point is far less clear but informed advice has consistently been to sell livestock when the early signs of drought are identified even if there are later 'regrets' about such a decision if the drought breaks sooner than expected. The alternative approach - keeping stock until drought conditions become serious and available feed resources start to run out carries far greater risks than the cost of bulding up livestock numbers if there is an early break. Feeding sheep and beef cattle through a drought, when no end-point is defined, carries considerable financial risk and can also severely compromise recovery due to over-grazed paddocks and depleted resources and run-down infrastructure.

The dairy industry is a bit different than sheep and cattle grazing due to the huge capital cost of milking equipment and infrastructure. The dairy industry is much closer to the pig and poultry industries in terms of intensive feeding. For these intensive production systems, pressure should be applied to the supermarkets to pay higher prices to farmers and pass on the additional feed costs to the consumer.

*Use all the data available to help recognise early signs of a drought.* Long-range weather forecasts used in conjunction with biophysical models of soil moisture, pasture production and livestock grazing are now available to provide accurate forecasts up to 100 days ahead. The web-based app ASKBILL is an example of this type of program. Using predictive analytical information, in conjunction with observation and measurement of pasture availability and animal performance, helps make better decisions on reducing stocking rate before damaging paddocks through over-grazing. An early warning system gives more time to make arrangements for agistment or sale of stock before the market is flooded and prices drop.

*Re-consider the value of subsidising feed and feed transportation.* Most government intervention and assistance has traditionally focused on supporting producers who did not destock and sell livestock early, by subsidising transport of hay and other feed resources. By supporting longer periods of feeding, this form of subsidy ensures that producers further deplete their reserves and further damage existing pastures by overgrazing. A more effective approach than subsidies for feed transport could be a subsidy for stock transport associated with sale or agistment.

*Unique genetic merit is rarely a good reason for retaining stock during drought.* One of the most common reasons for producers retaining and feeding their flock or herd is the perception that the 'genetics' are of a very high quality and 'irreplaceable'. While this is true for a number of seedstock producers it is not always the case if breeding rams and bulls is not the primary business.

For commercial sheep flocks the flock genomic profile test, developed by the Sheep CRC, accurately benchmarks the genetic merit of a flock. This test is able to define the genetic merit of sheep prior to sale or purchase and provides an objective basis for assessing the characteristics of a flock and for selecting replacements for the rebuilding phase.

For cattle good records of the bulls used over the last 10 years (with data on the Estimated Breeding Values – EBVs) will give a good measure of the genetic merit of a commercial beef herd.

Selecting animals to sell or retain should be made using data on individual animal productivity so that only the most productive animals are kept, agisted or fed. Few commercial producers have this information available but it can be make an important contribution to drought management.

## **2. Maintain and improve infrastructure for the recovery phase**

One of the most effective ways of providing government assistance during drought may be through funding assistance for improvements to farm infrastructure and getting 'recovery ready' so that the enterprise is well-placed for profitable production when the drought breaks. The normal practice during a drought is to divert all available resources into feeding livestock which leaves financial resources depleted and infrastructure run down ahead of the recovery phase. With extensive or total de-stocking in times of severe drought, as suggested above, there is an opportunity to allocate resources to infrastructure improvement and capacity building. Government investment in supporting these activities is likely to produce better returns than subsidising the costly practice of supplementary feeding that can actually exacerbate the problem.

*Infrastructure improvement.* Expenditure on cleaning and enlarging dams, fencing, animal handling facilities and farm water supply are likely to improve long-term productivity. Importantly, most of these improvements require off-farm labour and contribute to maintaining stability in the regional labour force. This approach also contributes to sales and servicing provided by local businesses impacted by the drought.

*Technical assistance to plan the recovery.* Subsidising the cost of technical advice and genomic flock profile testing will help identify suitable sheep and cattle for the post-drought rebuilding phase. This planning should consider the key markets targeted by the production system and search for the right sheep and cattle to buy in for re-stocking. Assistance may also be useful in planning and contracting agistment. As for expenditure on an infrastructure improvement, a subsidy on advice and technical support would contribute to sustaining professional services in towns and regions affected by the drought.

*Preparing for data collection to be able to undertake within flock/herd selection.* The collection and management of data that can be used when making culling/selling decisions can take quite a lot of preparation and infrastructure. Investment in individual animal productivity data can deliver benefits through retaining only the most productive animals for rebuilding the flock or herd.

## **3. Implementing the recovery plan**

More effective than subsidizing supplementary drought feeding may be a subsidy or favourable loan terms for rebuilding flocks and herds at the end of the drought. Such a subsidy, implemented in conjunction with the recovery planning discussed above, would help overcome on the very real concerns about not being able to afford the rebuilding process or ever being able to find animals of the same genetic merit.

## **Concluding comments and recommendations**

The approach discussed above needs further development and a lot of work to fine-tune and implement. Changing attitudes and providing incentives to encourage early de-stocking in order to avoid over-grazing will take time. Determining appropriate scope and levels of support for infrastructure improvement will require economic modelling and some 'trial and error'. Establishing confidence in being able to measure genetic merit, using DNA (genomic) technologies, will require training and a number of well-designed case studies.

What is proposed is not a quick-fix. There are no easy solutions to managing the complex factors that contribute to the impact of drought on producers and regional communities. Hopefully some of the suggestions will form useful building blocks for long-term strategies and effective policies.

The following recommendations are presented for consideration by the Committee.

- a. Long-term weather forecasts in combination with biophysical models and rigorous feed budgets should be used to provide objective early-warning to livestock producers and those responsible for drought policy implementation.
  - b. Objective measures of genetic merit should be embedded in the process of buying and selling livestock during de-stocking and re-stocking processes. Subsidies and training programs should be considered to implement this initiative.
  - c. Arrangements for agistment should be encouraged through standard forms of agreement, further work on contracts to reduce risks and subsidies for livestock transport.
  - d. Incentive measures for developing farm infrastructure and enterprise management should be available for producers that respond early to signs of drought and de-stock to avoid the need of costly feeding and subsidies.
  - e. Capital should be available on favourable terms for re-stocking during the process of drought recovery.
-