



National Agro-meteorological Committee (NAC) Advisory on the 2015/16 summer season Statement from Climate Change and Disaster Management 02 DAFF 2015

29 October 2015

In the light of the seasonal outlook as produced by the South African Weather Service (SAWS), the following advisory guidelines are suggested. It is emphasized that these advisories are broad guidelines and should be interpreted considering the local aspects of the region such as soil types, cultural preferences and farming systems. Depending on the particular region, the prioritization of the guidelines will differ. The basic strategy to follow would be to minimize and diversify risk, optimize soil water availability and to manage the renewable resources (rain water and grazing) to uphold sound farming objectives. Long-term mitigation strategies should be considered by implementing techniques to enhance in-field water harvesting by reducing run-off and improving infiltration. Reduced tillage methods are very important in this regard, as is basin tillage, to capture rainwater in the drier areas. **The provinces should further simplify, downscale and package the information according to their language preference and if possible use local media and farmers' days to disseminate the information. Users are advised to be on the look-out and act on the daily extreme weather warnings as well as the monthly advisory.**

I. CURRENT CONDITIONS

Figure 1

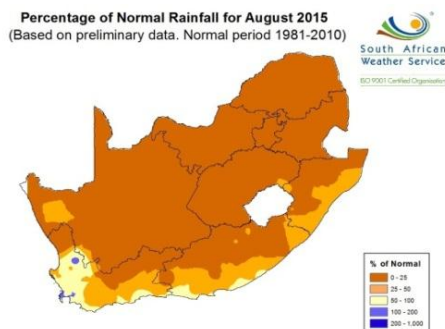


Figure 2

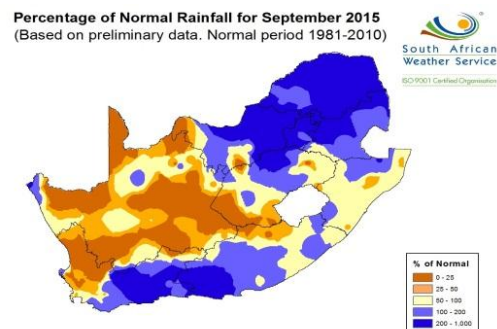


Figure 3

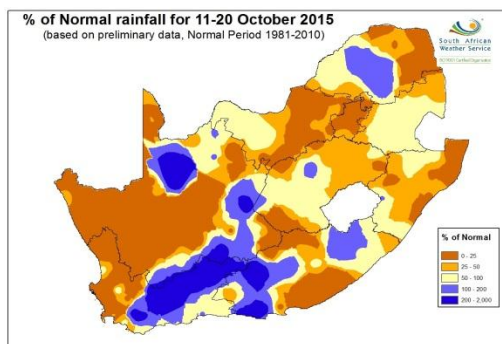
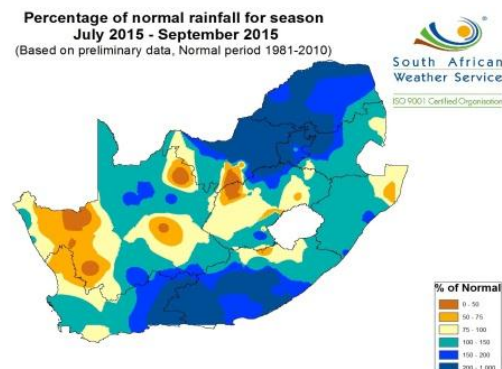
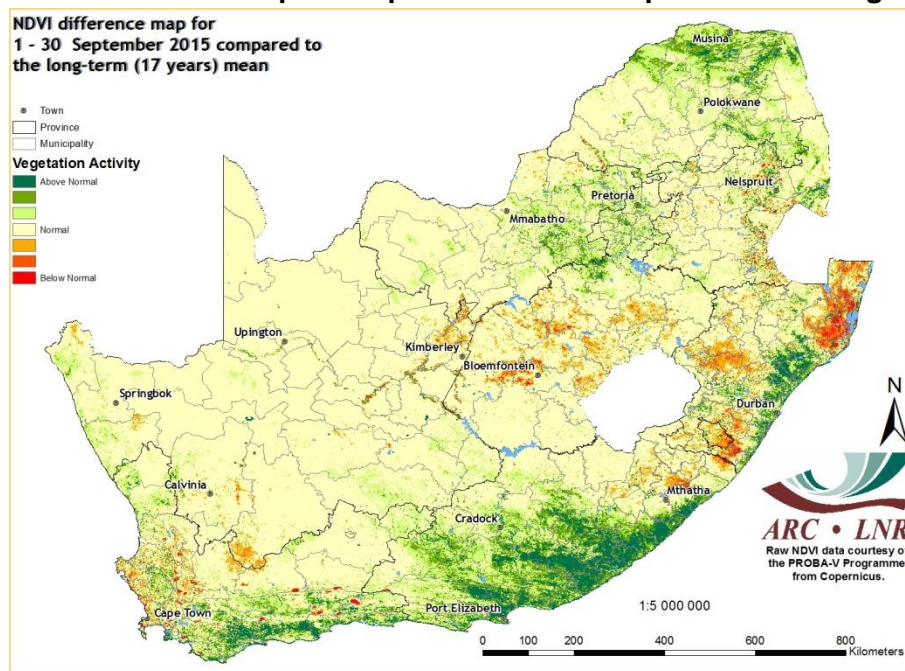


Figure 4



In August, below normal rainfall was received countrywide (**Figure 1**). The rain increased in September becoming above normal over the north-eastern parts of the country and the southern coastal areas (**Figure 2**). During 11-20 October, rainfall was below normal with patches of above normal in some areas (**Figure 3**). The season July to September 2015 received above normal rainfall over most of the country with patches of near normal to below normal mainly in the Free State and the Northern Cape (**Figure 4**).

NDVI difference map for September 2015 compared to the long-term mean



Vegetation activity increased over much of the summer rainfall region, related to higher temperatures and widespread rain. Decrease in activity occurred over KwaZulu-Natal, parts of Free State and Western Cape.

II. CONDITIONS IN THE PROVINCES DURING SEPTEMBER 2015

Eastern Cape

Rainfall was near normal but above normal mainly in Sarah Baartman. Crops in Joe Gqabi and Sarah Baartman are in good to very good condition but poor in parts of OR Tambo and Amathole. Livestock conditions are poor to fair in most local municipalities but good in Sarah Baartman, Amathole and Chris Hani. Rangeland is good in Sarah Baartman but reasonable in other areas and poor in Joe Gqabi and Alfred Nzo. Cases involving mortality of fowls due to Newcastle disease in parts of Chris Hani were reported. Furthermore, there were livestock mortalities in Mqanduli in OR Tambo due to suspected plant poisoning. Whitefly infestation in a tomato tunnel project in Port St Johns was also reported. Water sources are critical in parts of Joe Gqabi, some areas of Chris Hani and in Alfred Nzo. The level of major dams is slightly higher at 78% in 2015 as compared to 76% of 2014.

Free State

Very dry conditions have been reported. Land preparations have started at a very low pace due to lack of soil moisture. The condition of natural veld is poor as well as the livestock in general due to drought. Also, there were livestock mortalities in Brandfort and Rouxville due to the drought. Farmers are strongly advised to keep their lands covered with plant material (mulch) to reduce the rate of evaporation. Veld fires have been reported in Xhariep, Mangaung Metro, Thabo

Mofutsanyane, and parts of Lejweleputswa. There were hailstorms in Ficksburg and Zastron. The level of major dams remains lower as compared to 2014 during the same period (68% in 2015; 79% in 2014).

Gauteng

The province remains dry with most farmers still having a challenge of unavailability of ground water for their crops and animals. Farm dams and streams have dried up and some are very low. Crops are in poor condition due to water and heat stress. Farmers have a challenge with the soil moisture content where plant-seedlings are drying and some are not germinating from the ground. Most crop farmers within Mogale City and Randfontein municipality are still in the process of land preparation for planting. The condition of the veld and livestock in some areas is still fair to poor, but the veld has started to regenerate due to rain received. Some farmers are supplying supplementary feed to their livestock. A veld fire incident was reported in Bronkhorstspuit where a livestock farmer was affected. The level of major dams is low at 84% as compared to 92% of 2014.

KwaZulu-Natal

Heat waves have been experienced across the province. The drought monitoring map indicates ten districts in severe drought state with the exception of Harry Gwala which reverted to minor drought status. Growth for rye grass pastures is fair to good in most districts but grass is starting to “pipe” because of heat waves. Irrigation is restricted. Regrowth and greening of kikuyu remains slow; while maize and grass silage is running low and in many areas already depleted. Hay is available at a premium. In a few areas the first cut of the season has been done but yields are low. Maize and soya planting in the dry-land growing areas has not started. Wheat under irrigation in Uthukela district is doing well. Livestock is still extremely variable across all districts, ranging from good to fair to very poor in some areas. The veld is still very dry. Tick numbers on livestock have increased and regular dipping will be necessary. Dam levels have decreased as compared to previous year (58% in 2015; 74% in 2014).

Limpopo

Below normal rainfall was reported in some areas of the province. Normal to above normal temperatures dominated. General conditions of the grazing areas are poor in communal areas and fair in commercial areas. Furthermore, livestock condition is deteriorating especially in communal areas. Both farm dams and rivers are drying up. The average level of major dams is at 72% in 2015 as compared to 84% of 2014 during the same period.

Mpumalanga

The province received near normal to above normal rainfall. Crops are in good condition while veld and livestock are in poor condition. Poisonous plants have resulted in cattle mortalities. Sheep mortalities were also reported as a result of naval bot flies and farmers were advised to vaccinate and also provide Ivomet to the affected sheep. The average level of major dams has decreased to 71% in 2015 as compared to 85% of 2014.

Northern Cape

Normal to below normal rainfall was received. Drought has been reported in Loeriesfontein, Calvinia and Brandvlei. Overall veld and livestock conditions are still fair to good. Vegetables are in good condition whereas grapes are being prepared for the export market. The level of major dams is at 77% as compared to 91% of 2014.

North West

Above normal rainfall was received in most areas. Most crop fields are heavily infested by weeds. The conditions of livestock and veld are poor and farmers have been advised to reduce livestock. The level of major dams is at 54% lower than 65% of 2014.

Western Cape

The West Coast and adjacent areas received below normal rainfall while districts further to the east received above normal rainfall. The West Coast district has resulted in a substantial smaller wheat crop for winter cereal production than originally anticipated with many farmers facing a total crop loss. The production of canola and barley is expected to be above average. The Central Karoo received above normal rainfall during September thus bringing temporary relief to the drought affected areas. Northern parts of the West Coast experienced critically dry conditions, the veld is in very poor condition while livestock remains in reasonable condition, lambing and lambs are below normal. The level of dams has decreased compared to the previous year (70% in 2015; 89% in 2014).

III. AGRICULTURAL MARKETS

Major grain commodities

According to FNB Agri-Weekly yellow and white maize prices are lower and wet conditions are desperately needed in dry land production regions for planting to commence. Wheat prices ended with gains as concerns over persistent dryness and possibilities of water restriction in the Western Cape continues. Prices are expected to trade closer to what purchasers expect to pay for imported goods with Rand providing further direction. Oilseed prices ended firmer and prices will continue to trend at current levels due to higher import prices.

Domestic prices per Safex (R/t)

	Futures prices as at (2015/10/20)				
Commodity	2015/10	2015/12	2016/03	2016/05	2016/07
White maize	R3162.00/t	R3202.00/t	R3197.00/t	R2964.00/t	R2922.00/t
Yellow maize	R2860.00/t	R2853.00/t	R2856.00/t	R2743.00/t	R2697.00/t
Wheat	R4138.00/t	R4198.00/t	R4285.00/t	R4317.00/t	R4347.00/t
Sunflower	R6703.00/t	R6709.00/t	R5850.00/t	R5420.00/t	R5465.00/t
Soybeans	R5410.00/t	R5450.00/t	R5392.00/t	R5240.00/t	R5275.00/t
Sorghum	N/a	R3040.00/t	R2974.00/t	R3078.00/t	N/a

SAGIS weekly bulletin: 2015/10/22

Livestock domestic markets

FNB stated that beef prices showed losses under pressure due to improved supplies and softer demand during midmonth and prices are expected to follow an upward trend as a result of improved demand moving into the holiday season. Meanwhile, pasture conditions have deteriorated due to lack of rain in some areas. More rain is needed urgently otherwise producers will be forced to reduce their stock levels. Lamb and mutton prices are lower due to softer midmonth demand and improved volumes and prices are expected to maintain a firmer trend in the medium term on increased seasonal demand and moderation in supplies. The pork and baconer prices showed losses and it is expected that prices will bottomed out and strengthen in the medium term due to increased seasonal demand. Poultry market traded mostly sideways and it is expected that prices will increase in line with the seasonal trends.

Producer prices for selected livestock commodities	Beef	Mutton	Pork	Poultry
Open market: Class A / Porker / Fresh whole birds (R/kg)	34.12	54.87	22.28	21.62
Open market: Class C / Baconer / Frozen whole birds (R/kg)	29.08	42.57	21.10	21.05
Contract: A2/A3* / Baconer/ IQF (*includes fifth quarter) (R/kg)	35.02	55.28	21.25	18.47
Import parity price (R/kg)	35.67	32.88	28.82	17.56
Weaner Calves / Feeder Lambs (R/kg)	20.56	27.50		

FNB AgriCommodities:2015/10/16

NB: Users are advised that these are just indicative prices therefore it is imperative that clients investigate their own individual basis value when marketing their products (livestock and grain).

IV. SADC REGION

The FEWS-NET report issued during September 2015 indicated that the Climate Prediction Center's El Niño Advisory shows that there is approximately a 95 percent chance that the El Niño will continue through the remainder of 2015 and will likely weaken by the end of the rainy season in 2016. Based on an analysis of previous El Niño events, most of the region is expected to experience erratic rains, possibly leading to a late start, along with poorly distributed rains for the first half of the season. These conditions will likely result in inadequate moisture for crops, which could adversely impact weeding opportunities that normally provide incomes for very poor and poor households during the lean season. Following below-normal harvests during the 2014-15 agricultural season, poor households in southern parts of Malawi, Zimbabwe, Zambia, Madagascar, Lesotho, and Angola are now relying entirely on market purchases for their staple because own-produced cereal stocks were finished months earlier than normal. Some poor households in the southern region of Zimbabwe, Malawi, and parts of Madagascar are already experiencing Crisis (IPC Phase 3) acute food insecurity because higher than normal food prices are hindering access. Stressed (IPC Phase 2) outcomes are expected in several other parts of the region. The only areas in the region where acute food insecurity will be Minimal (IPC Phase 1) through December include South Africa, northern Zambia, and northern Tanzania, where households are still consuming their own-produced cereals.

[The Integrated Food Security Phase Classification (IPC) is a set of standardized tools that aims at providing a "common currency" for classifying the severity and magnitude of food insecurity.]

Summary of the reports

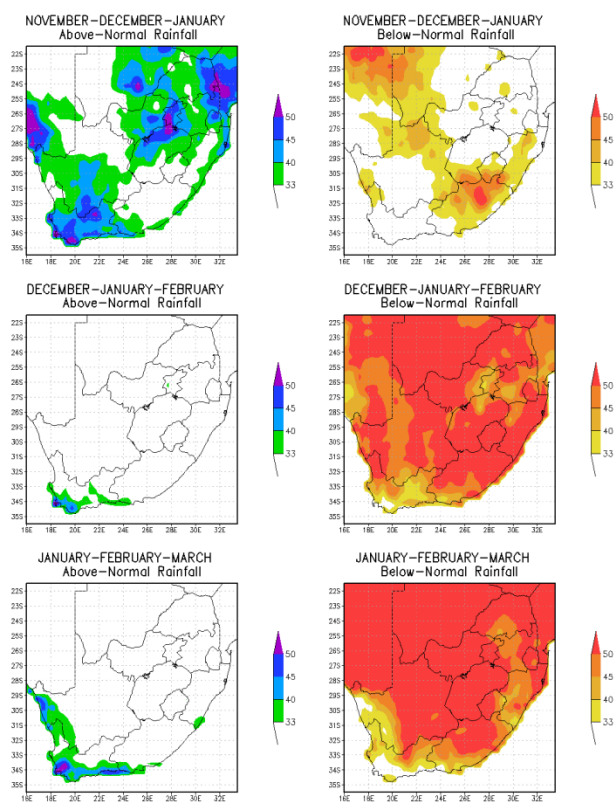
Although above normal was received over the north-eastern parts of the country and over the southern coastal areas many provinces remain dry with drought being declared in others. The veld condition is poor in most areas while livestock condition ranges from poor to reasonable. Incidents of veld fires have been reported in Gauteng and Free State. There were livestock mortalities in Free State due to drought, in Mpumalanga due to plant poisoning and naval bot flies and Eastern Cape due to suspected plant poisoning. Whitefly infestation was reported on tomato in the Eastern Cape as well as cases of mortality of fowls due to Newcastle disease. The level of major dams is lower as compared to the 2014 level in almost all provinces. Over SADC, most of

the region is expected to experience erratic rains, possibly leading to a late start, along with poorly distributed rains for the first half of the season.

V. MONTHLY CLIMATE OUTLOOK

Seasonal Climate Watch: November 2015 to March 2016

Figure 1- Rainfall



The forecasting system indicates significant probabilities of above-normal rainfall for parts of north-eastern South Africa at the start of summer and below-normal for parts of the southern parts of South Africa for the same period. High probabilities of below-normal rainfall for the mid- and late- summer season is predicted by the forecasting system countrywide.

Figure 2 - Minimum temperatures

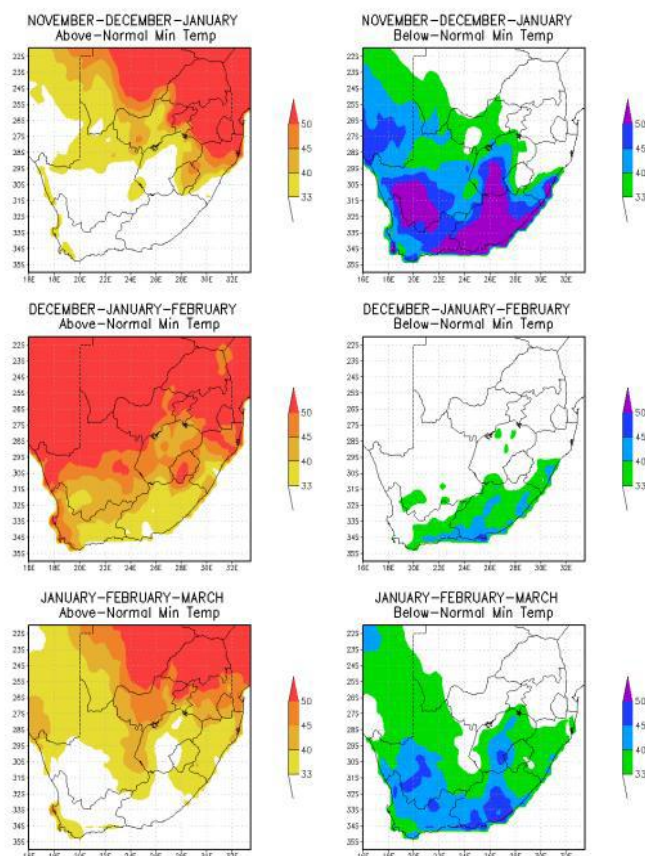
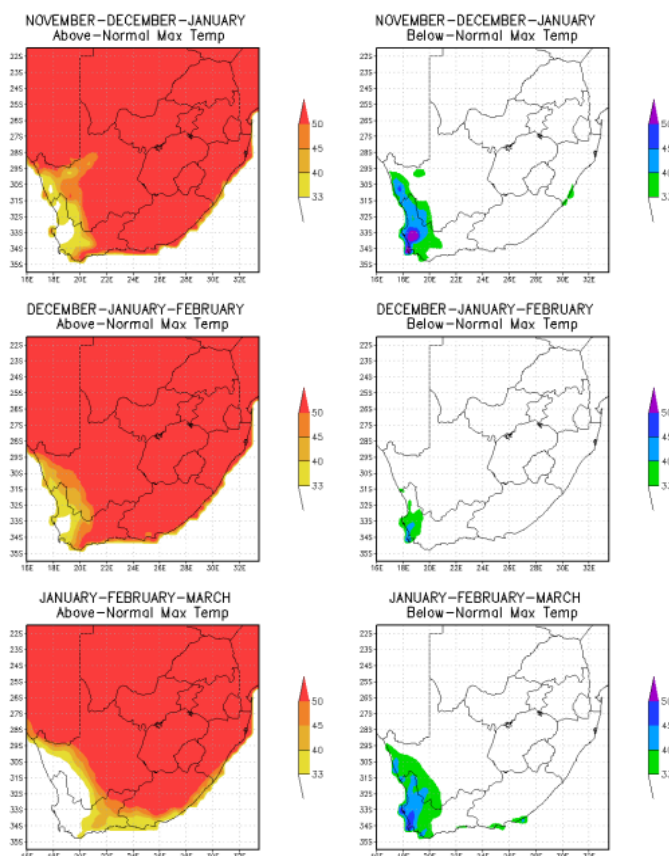


Figure 3 - Maximum temperatures



The forecasting system indicates generally above-normal temperatures across the country through early summer towards mid-summer, with an exception of below-normal minimum temperatures for the southern parts of South Africa.

How to interpret the forecast maps

- There are three sets of forecast maps: the rainfall, minimum and maximum temperatures.
- Each set consists of maps showing the probabilities for above-normal (left panels) and below normal (right panels) conditions to occur.
- For each forecast map a probability percentage is given on a scale of 0-50% and above (the colour bars on the right hand side of each map) for the rainfall or temperatures for the season, i.e. NOVEMBER-DECEMBER 2015 – JANUARY 2016.
- The forecast probabilities indicate the **direction** of the forecast as well as the amount of **confidence** in the forecast.

For further clarification using NOVEMBER-DECEMBER 2015 -JANUARY 2016 rainfall (**Figure 1**) as an example:

North West Province, for the above normal rainfall category, is shaded mainly in green with patches of light blue (**33%-40%, 40%-45%**). In the below normal rainfall category it is shaded mainly in white (**<33%**).

Comparing the two:-

- above normal: green and light blue (33%-40%, 40%-45%),
- below normal: white (<33%)

The above normal rainfall category for November - December 2015 to January 2016 has higher values and is therefore favoured. This means that rainfall is anticipated to be above normal over most of the North West Province during the period November - December 2015 to January 2016.

State of Climate Drivers

Observations show that ENSO is currently in the strong El-Niño situation. The atmosphere is also responding to this strong SST (sea surface temperature) warming over the equatorial Pacific including the weakening of the trade winds and other typical patterns. Most of the forecast model's predictions indicate the strengthening of El Niño condition through the start of the austral summer and is expected to continue towards late summer and early autumn seasons.

In summation, above normal rainfall is anticipated during the early part of summer (November) over the north-eastern parts and south-western parts of the country. Below normal rainfall is expected for the remainder of summer. Maximum temperatures are anticipated to be above normal throughout summer. Farmers are encouraged to continually check updates i.e. seasonal forecasts and utilize 7 day weather forecasts for short term planning.

With the above forecast in mind, the following strategies are recommended:

VI. SUGGESTED STRATEGIES:

With the seasonal forecast for dry and hot conditions for much of summer, together with limited moisture available, farmers are advised to be conservative in their planting i.e. planting density/cultivar/area being planted.

A. Rain-fed crop production

Soil choice

- Choose suitable soil type.
 - Suitable soil and land use management practices that would control wind and water erosion in cultivated lands are suggested.
 - Avoid marginal soils - shallow and low water holding capacity soils.
 - Rather plant in soils with high water holding capacity or with shallow water table.
- Ascertain that the soil profile has enough water when planting commences.
- Roughen the soil surface to enhance rain water penetration and reduce runoff.
- Minimise compaction by reducing the passing of heavy machinery in the field.
- Add organic material to improve soil structure.

Land preparation

- Avoid where possible soils with pronounced plough pans.
- Consider practicing conservation agriculture such as zero or minimum tillage.
- Cover soil with organic matter or cover crops.
- Practice crop rotation.
- Do not expand land under crop production unnecessarily.
- Prioritise fallow land.

Crop choice and planting

- Choose drought resistant cultivars.
- Provide flexibility and diversification.
- Rather plant early in the season than late, but stay in the normal planting window and follow the weather and climate forecast regularly so as to make informed decisions.
- Consider staggered planting - spreading over weeks.
- Do not experiment with new and unknown cultivars and also avoid unnecessary capital investments.
- Consider intercropping for improved soil structure and pest/diseases control.
- Planting in a controlled environment (e.g. green house) is advisable where possible.

Crop management

- Adjust planting density accordingly.
- Consider mulching to minimize evaporation.
- Control weeds regularly.
- Consider a conservative fertilizing strategy during dry conditions.
- Consider organic fertilization.
- Scout for pests and diseases regularly and control where necessary.
- Practice water harvesting techniques e.g. construction of basins, contours, ridges.

B. Irrigation farming

- Remove all weeds containing seeds, but keep other vegetative rests on the land because that will reduce evaporation.
- Check and repair all tools and machinery especially where there are water leaks.
- Obtain the relevant seeds to be planted considering the climate forecast.
- Be aware of the state of regional water resources and whether it will be adequate for irrigation.
- Irrigate with the correct amount, never over-irrigate.
- Timing of irrigation - rather late afternoon or early evening to reduce evaporation.
- Be aware of current and expected weather conditions and re-look at the area to be planted as there are already water restrictions in some areas.
- Manage irrigation so that the plant receives water only when needed.
- Use drip irrigation rather than sprinklers.
- Quality of irrigation system:
 - Repair leaks,
 - For canal irrigation - line with concrete to reduce water loss.

C. Domestic and home garden water use

- Conserve existing water supplies.
- Eradicate water weeds.
- Limit water waste and losses.
- Repair leaking pipes.
- Re-use water and retain high quality.
- Use grey water in gardens.
- Harvest water during rainy days.

D. Stock farming

- Keep stocking rates conservative and even lower to protect grazing.
- Never exceed carrying capacity of plant associations.
- Provide lots of drinking points where possible.
- Provide additional fodder and enhance nutritional value of dry grazing/feed with licks:
 - Phosphorous deficiency is a major problem.
 - Licks should (in most cases) provide:
 - Phosphorous.
 - Urea (to help with the break-down of dry vegetation).
 - Salt.
 - Molasses.
- Deficiencies differ according to vegetation composition/soil properties/climate.
- Analysis of vegetation/soil samples can benefit the decision for supplement composition.
- Sell mature, marketable animals (to help prevent overstocking/ overgrazing).
- If grazing is in danger, herd animals into pens where different animals can be segregated and fed separately.

E. Grazing

Grazing has deteriorated throughout the country.

- Subdivide your grazing area into camps of homogeneous units (in terms of species composition, slope, aspect, rainfall, temperature, soil and other factors) to minimise area selective grazing as well as to provide for the application of animal management and veld management practises such as resting and burning.
- Determine the carrying capacity of different plant associations.
- Calculate the stocking rate of each, and then decide the best ratios of large and small animals, and of grazers or browsers.
- Provide periodic full growing-season rests (in certain grazing areas) to allow veld vigour recovery in order to maintain veld productivity at a high level as well as to maintain the vigour of the preferred species.
- Do not overstock at any time to avoid overgrazing.
- Always eradicate invader plants.
- Periodically reassess the grazing and feed available for the next few months, and start planning in advance.

F. Pests and diseases

Crops

- Fruit crop farmers should regularly scout for pests and diseases and contact the local agricultural office for advice on best control measures. Farmers should further implement phytosanitary measures.
- Irrigation farmers should monitor for pests and diseases especially those associated with humid and hot conditions.

Livestock

- Follow the vaccine routine and consult with the local veterinarian.

G. Veld fires

The provinces and farmers are advised to maintain firebreaks in the summer rainfall areas and to begin construction of firebreaks in winter rainfall areas. An owner of the land who is obliged to

prepare and maintain a firebreak must ensure that, with due regard to the weather, climate, terrain and vegetation of the area, the following is taken care of in terms of installing firebreaks (Chapter 4 of the National Veld and Forest Fire Act No. 101 of 1998):

- It has to be wide enough and long enough to have a reasonable chance of preventing a veld fire from spreading to or from neighbouring land.
- It does not cause soil erosion and
- It is reasonably free of inflammable material capable of carrying a veld fire across it.
- Firebreaks may be temporary or permanent.
- Firebreaks should consist of fire-resistant vegetation, inflammable materials, bare ground or a combination of these.
- Firebreaks must be located in such a way as to minimize risk to the resources being protected.
- Erosion control measures must be installed at the firebreak.

Firebreaks can be made through the following methods:

- Mineral earth firebreak:
 - Through ploughing, grading, other earth movement.
- Use of herbicides.
- Use animals to overgraze specifically to minimise fuel.
- Strategic placement of burned areas,
 - Not to be done on days with fire hazard (windy and dry/hot).
- Plant fire resistant plants.
 - Plant species selected for vegetated firebreaks must be non-invasive and capable of retarding the spread of fire.

Maintaining firebreaks:

- Mow, disk, or graze vegetative firebreaks to avoid a build-up of excess litter and to control weeds.
- Inspect all firebreaks for woody materials.
- Inspect firebreaks at least annually and rework bare ground firebreaks as necessary.
- Repair erosion control measures as necessary.
- Access by vehicles or people must also be controlled.
- Bare ground firebreaks, which are no longer needed must be stabilized i.e.
 - Sow grass.
 - Mulch.

What to do when conditions favourable for veld fire are forecast:

- Prohibit fires in the open air during periods of high fire hazard and establish a fire control committee.
- To control fires, an alarm system, fire-fighting teams, and beaters must be organized in advance and plans prepared.
- Livestock should be moved out of grazing land to a safe place.

What to do during veld fire:

- Water is generally not available in sufficient quantities or at adequate pressure for the control of major fires; however, sand or other loose mineral soil material can be an effective method of control.
- Tree branches can be used to beat fire.

H. Heat stress – bad for productivity

- Signs of heat stress:
 - Bunching in shade, high respiratory rates, open mouth breathing.
- What to do:
 - Offer shade.
 - Offer water- keep good quality water in front of animals.
 - Wet with sprinklers/fire hose.
 - Water ground.
 - Avoid overworking animals.
 - Control insects. Biting insects, such as flies can further stress livestock and interrupt their cooling. If pastures or buildings draw insects to livestock during times of extreme heat, provide proper insecticides or considering relocating your livestock.

Poultry

- Provide cool, clean, quality drinking water to your poultry. Water will help keep your birds cool.
- Always make sure your poultry is in a well-ventilated area in which there is nothing to obstruct the airflow.
- Provide feed during the coolest part of the day.
- Supplement drinking water with electrolytes.
- Reduce the number of birds kept in a house or in an area.
- Avoid excessive activity during the hottest part of the day.

I. Severe thunderstorms/flash floods

Building resilience:

- Identify resources/facilities within 50km that can be utilized and can be of help during emergencies.
- Be sure to have legal and adequate markings to identify your livestock.
- Stay well informed about livestock in your possession and conduct an inventory after the event.
- Monitor television and local radio stations for information regarding severe storms/flash floods in your region.
- Identify natural or built areas/shelters where animals can be kept during such conditions
 - Sufficient height to be above water level,
 - Sheltered from strong winds and wetness,
- Restrict access to high-risk areas such as low lying fields close to streams.
- Store food in safe areas sheltered from wetness to be used after storms/flash floods.
- Keep pesticides and other chemicals in areas where water will not be contaminated during extreme rainfall/storm events.
- Inspect/repair farm dams
 - Before rainy season, after each event.

Drought/very dry conditions continue to be reported in most provinces. The seasonal forecast favors above normal rainfall in the north-eastern parts of the summer rainfall areas during the early part of summer (November), while for remainder of summer dryer conditions are expected. Maximum temperatures are anticipated to be above normal. With the seasonal forecast in mind, and the current drought/very dry conditions in provinces, farmers are advised to approach the season with extra caution.

Dry-land farmers should wait for sufficient moisture before planting, but should rather plant early than late and stay within the normal planting window. Also, they should consider drought tolerant cultivars including sorghum where possible. Irrigation farmers should reduce the planting area in line with water restrictions in their areas and also consider the below normal rainfall forecast. Farmers should follow the weather and climate forecast regularly so as to make informed decisions. Water restrictions have been implemented in some provinces hence, water and other resources need to continually be conserved in accordance with the Conservation of Agricultural Resources Act (Act No. 43 of 1983).

Livestock must continually be kept in line with carrying capacity of the veld and should be provided with additional feed including licks to give sufficient nutrition. Farmers are advised to further reduce livestock to protect the limited grazing i.e. selling of animals. Veld fires have been reported in some provinces and the risk remains high for conditions conducive for veld fires as the veld is dry. Farmers are encouraged to maintain firebreaks in summer rainfall areas and adhere to veld fire warnings. Farmers in winter rainfall areas should begin putting measure in place for veld fires. Severe thunderstorms with damaging winds and hail as well as heat waves are likely to occur and therefore measures to combat these should be in place. Isolated localised flooding is also possible in summer rainfall areas; precautionary measures for these should be in place.

The users are urged to continuously monitor, evaluate, report and attend to current Disaster Risk issues. It is very important and mandatory for farming communities to always implement disaster risk measures and maintain good farming practices.

The climate advisory should be disseminated widely. Users are advised to be on the look-out and act on the daily extreme weather warnings as well as the monthly advisory. Information sharing groups are encouraged especially among farming communities for sustainable development. In general, effective communication among all stakeholders in the sector will enhance effective implementation of risk reduction measures/early warning services. It is the responsibility of farmers to implement disaster risk measures.

The Disaster Management Act (Act No. 57 of 2002) urges Provinces, individuals and farmers, to assess and prevent or reduce the risk of disasters using early warning information.

The current advisory can be accessed from the following websites: www.daff.gov.za and www.agis.agric.za.

For more information contact:-

<p>DAFF, Directorate: Climate Change and Disaster Management Private Bag X93 Pretoria 0001 Tel: 012 309 5722/23; Fax: 012 309 5878 Email: MittaA@daff.gov.za</p> <p> agriculture, forestry & fisheries <small>Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA</small></p>	<p>SAWS: Private Bag X097 Pretoria 0001 Tel: +27 (0) 12 367 6000 Fax: +27 (0) 12 367 6200 http://www.weathersa.co.za</p> <p> South African Weather Service</p>	<p>ARC: Institute for Soil, Climate and Water Private Bag X79 Pretoria 0001 Tel: 012 310 2500 Fax: 012 323 1157 Email: iscwinfo@arc.agric.za, http://www.arc.agric.za</p> <p> ARC • LNR <i>Excellence in Research and Development</i></p>
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