agriculture, land reform & rural development
Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA

National Agro-meteorological Committee (NAC) Advisory on the 2024/25 summer season
Statement from Climate Change and Disaster Risk Reduction
5 DALRRD 2024

31 January 2025

Considering the seasonal climate watch 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 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 (rainwater 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

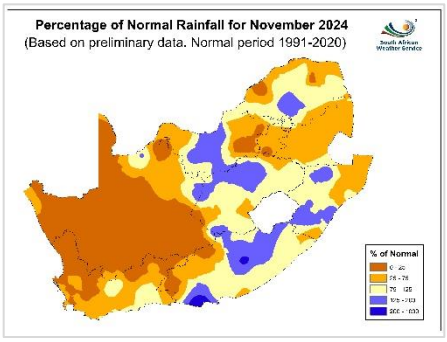


Figure 1

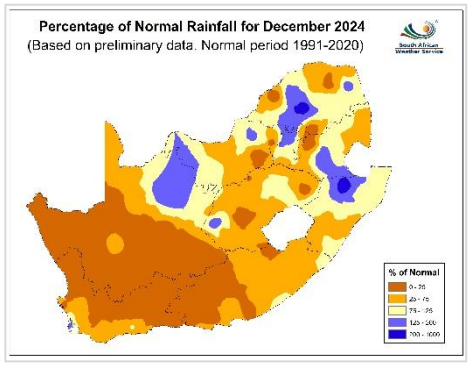


Figure 2

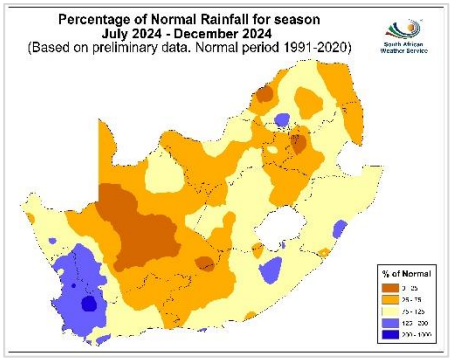


Figure 3

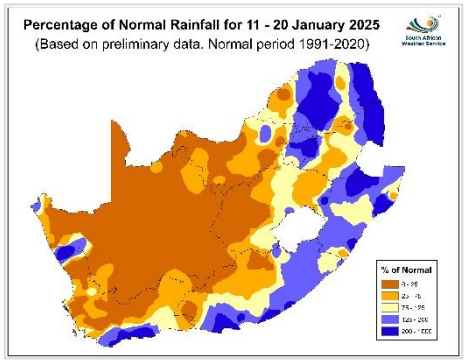
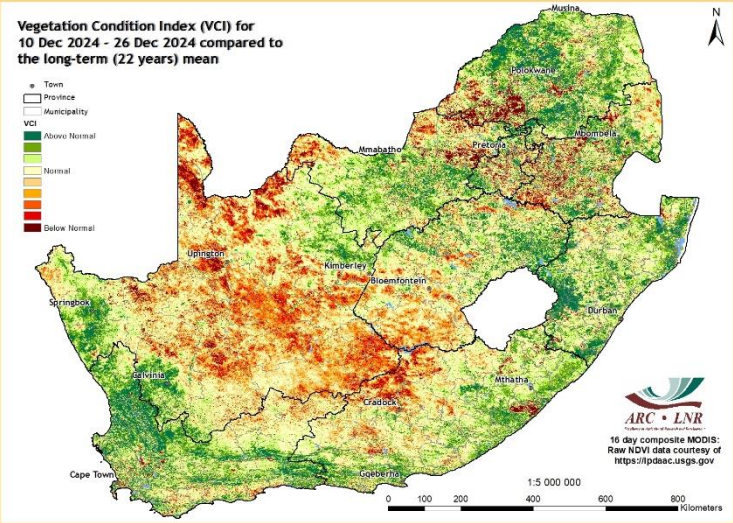


Figure 4

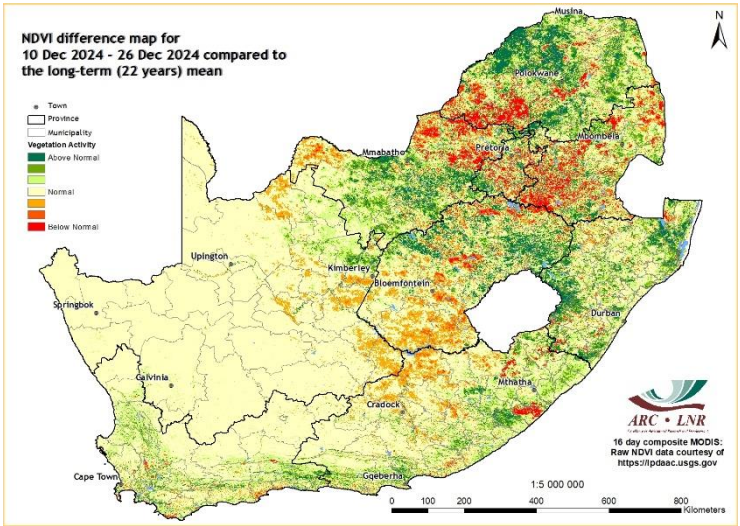
During November, near-normal to below-normal rainfall was received over most part of the country with patches of above-normal rainfall over parts of Eastern Cape, KwaZulu-Natal, Free State, North West, and Limpopo (**Figure 1)**. December received near-normal to below-normal rainfall in many areas with patches of above-normal rainfall in Northern Cape, North West, Free State, Mpumalanga, Gauteng, KwaZulu-Natal, and Limpopo **(Figure 2)**. The western half of the country received below-normal rainfall. The season July to December received a mixture of near-normal to below-normal rainfall in many regions of the country apart from the extreme south-western areas of the country where rainfall was above-normal **(Figure 3)**. Normal to above-normal rainfall was recorded during mid-January 2025 in the eastern parts of the country and south coast (**Figure 4**).

NDVI map: 10 – 26 December 2024 compared to the long-term mean



Compared to the historical averaged vegetation conditions, the 16-day NDVI map for the period 10-26 December reflected contrasting vegetation activity across the summer rainfall region. While some areas showed above-normal vegetation activity, other areas particularly the southern parts of Limpopo and adjacent areas in North West, Gauteng and Mpumalanga displayed below-normal activity.

VCI map: 10 – 26 December 2024 compared to the long-term mean



The VCI map for 10-26 December indicates poor vegetation conditions mainly in Gauteng, eastern North West, parts of Limpopo, Mpumalanga, and Free State. Above-normal vegetation conditions were also visible in the summer rainfall areas except the Northern Cape.

II. CONDITIONS IN THE PROVINCES DURING NOVEMBER/DECEMBER

Eastern Cape
NIL REPORT.

Free State
Normal to above-normal rainfall was received in November becoming mainly below-normal in December. Summer pastures are doing well. Planting of summer grains such as sunflower, maize and beans is complete. The late planting of potatoes still had an open window due to rainfall received. Potatoes and sunflower in Bethlehem and Lindley are in very good condition. Veld fires were reported in Xhariep that destroyed grazing in the mountains of Reddersburg and Petrusburg. There was flash flooding in Mantsopa local municipality in Thabo Mofutsanyana District Municipality, as well as in Virginia and Koffiefontein. Assessments are underway. There were also reports of yellow locust that invaded farms in Paul Roux and Rosendal, and they were controlled by farmers in consultation with the Disaster Management officials. The average level of major dams has decreased as compared to the previous year (76% in 2025; 95% in 2024).

Gauteng
Below-normal rainfall was received in November becoming mainly near-normal in December. Most farmers have completed planting soybean and maize. The veld and livestock are in reasonable condition. The average level of major dams has slightly decreased as compared to last year (91% in 2025; 92% in 2024).

KwaZulu-Natal
Near-normal rainfall was received with patches of above-normal and below-normal during November and December. Summer pastures are in good condition. Summer crops are tussling; however, the planting dates did fluctuate, and wheat has been harvested. Livestock condition is good across the province. There are signs of improved vegetation health due to rain and warm temperatures. In January 2025, the province experienced severe weather conditions causing flooding, damage to infrastructure and death of livestock. These were due to heavy down pours, strong winds accompanied by hail and lightning leaving most vulnerable farmers in dire situations. The impact has been observed more on subsistence farmers. Assessments are being conducted. The average level of major dams has increased as compared to the previous year (90% in 2025; 89% in 2024).

Limpopo
NIL REPORT.

Mpumalanga
Below-normal rainfall was received in November becoming near-normal in December with patches of below-normal and above-normal. Crop conditions in some parts of the province are poor due to temperature variations but good where shade nets are utilised. The veld and body condition of livestock is reasonable. The average level of major dams has decreased to 95%, which is lower than 97% in the previous year.

Northern Cape
Generally, below-normal rainfall was received in November and December. Most parts have seen a minor decline in wheat area planting due to very dry conditions that caused widespread crop failure. However, most crops in the area are produced under irrigation and production conditions are optimal. Farmers that are under pressure provide supplementary feed to their livestock which increase production costs. Most dam levels decreased as compared to last year during the same period due to

lack of rainfall. The average level of major dams has decreased to 66% in 2025 as compared to 86% of 2024 during the same period.

North West
A mixture of normal and below-normal rainfall was received in November and December. There were some areas that received above-normal rainfall. Some crop fields experienced water logging and will affect crop yields due to root rot and leaching of minerals. Other farmers had been preparing to plant and delayed due to rainfall. The veld and livestock are improving because of rain received. The average level of major dams is at 71% as compared to 76% of 2024.

Western Cape
Rainfall in December was below normal across most areas of the province. While temperatures were generally average, instances of extreme heat were recorded in the West Coast and Central Karoo regions. Crop conditions remain favourable overall, with the stone fruit harvest underway and the table grape harvest having commenced. Production of onion seed, tobacco, and lucerne is progressing well. Livestock conditions are good; however, many farmers need to provide supplementary fodder due to the deterioration of veld conditions. Water levels in major dams decreased by 6.9% month-on-month to 84.7%, which is 2.4% higher than at the same time last year.

Information on level of dams is obtained from the Department of Water and Sanitation
Available: https://www.dwa.gov.za/Hydrology/Weekly/Province.aspx
Dam levels as at 27/01/2025

III. AGRICULTURAL MARKETS

According to ABSA, local class A beef prices have pulled back from the highs of above R59.00 per kg during the festive season to levels apparent during the end of November 2024. Lamb prices have recorded a notable increase over the past month and are also up by double digits compared to the corresponding time last year. We attribute this to a lagged festive season uptick in demand. Pork prices remain under pressure with porker prices decreasing by almost 5% since the first week of December. Baconer price movements have also followed a downward trend. It is expected that pork prices will remain under pressure during the first quarter of the year. IQF prices are still trading below the levels apparent at the corresponding time last year when the production effects of Avian Influenza caused production to below capacity.

Producer prices for selected livestock commodities	Beef	Mutton	Pork	Poultry
Open market: Class A / Porker / Fresh whole birds (R/kg)	50.50	-	31.68	37.48
Open market: Class C / Baconer / Frozen whole birds (R/kg)	47.3	66.55	31.93	34.48
Contract: A2/A3* / IQF (*includes fifth quarter) (R/kg)	-	96.12	-	32.88
Weaner Calves / Feeder Lambs (R/kg)	32.52	40.55	-	-

ABSA: 21/01/2025

IV. SADC REGION

According to the September 2024 Famine Early Warning Systems Network (FEWS NET) report, Crisis (IPC Phase 3) outcomes are expected in parts of Zimbabwe, southern Malawi and southern Mozambique due to poor rainfall. Areas experiencing conflict in Mozambique and parts of the Democratic Republic of Congo (DRC) are also expected to experience Crisis (IPC Phase 3) outcomes. Food price increases have also continued in most countries in the region as stocks are depleted and demand is increasing.

[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.]

Source: http://www.fews.net/southern-africa

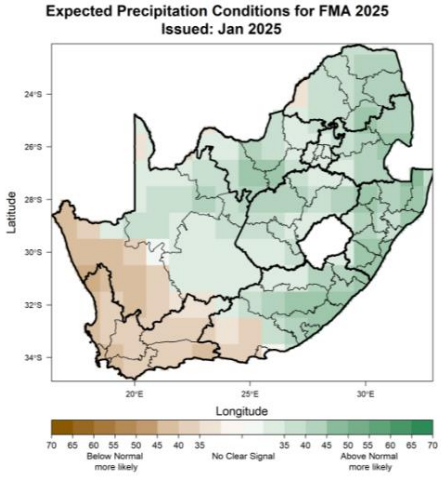
Summary of the reports
Summer rainfall areas received a mixture of normal-rainfall with patches of above-normal rainfall, as well as below-normal rainfall. Summer crops have been planted; however, rainfall disrupted planting in some areas. The veld and livestock are in reasonable condition. There were veld fires in parts of Free State. Flooding was reported in KwaZulu-Natal and Free State and there was damage to infrastructure in KwaZulu-Natal as a result. Assessments are underway. The average level of major dams has decreased.

V. MONTHLY CLIMATE OUTLOOK

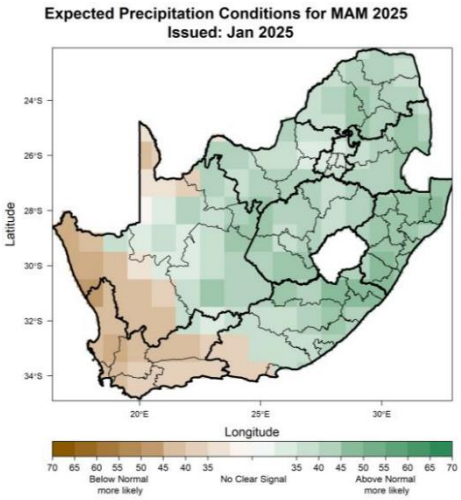
Seasonal Climate Watch: February to June 2025

State of Climate Drivers
The El Niño-Southern Oscillation (ENSO) has recently crossed the La Niña threshold and is predicted to remain on the boundary of this threshold for the next few months. Current predictions are still uncertain, with multiple global models predicting different direction (either strengthening the La Niña state or moving back to a Neutral state. For South Africa caution is still advised in using the ENSO in any important planning decisions as it seems to be currently very volatile and unpredictable. For South Africa time is running out as well for a potential La Niña to affect us as summer is coming to an end.

Figure 1 – Rainfall



Current predictions indicate above-normal rainfall for most of the north-eastern parts of the country during the full forecast period. This is in stark contrast to previous predictions and is most likely due to the sudden decrease in temperatures in equatorial pacific oceans, prompting a sharp increase in probability in getting above-normal rainfall. Below-normal rainfall is expected over the south-western parts of South Africa, however it is not their rainfall season yet, so no significant impact is expected.



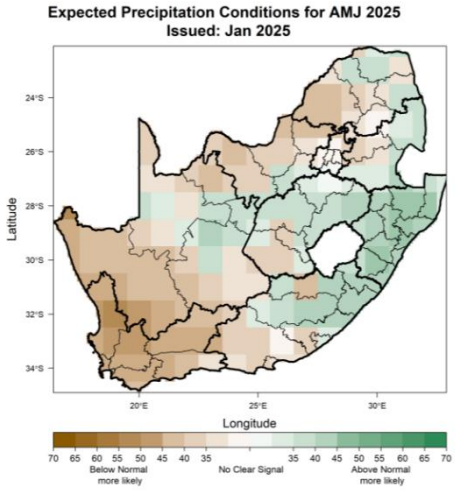
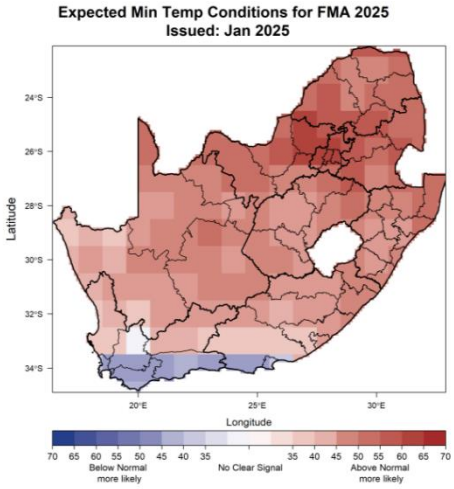
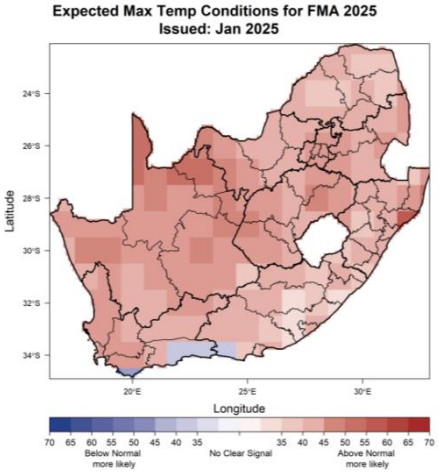
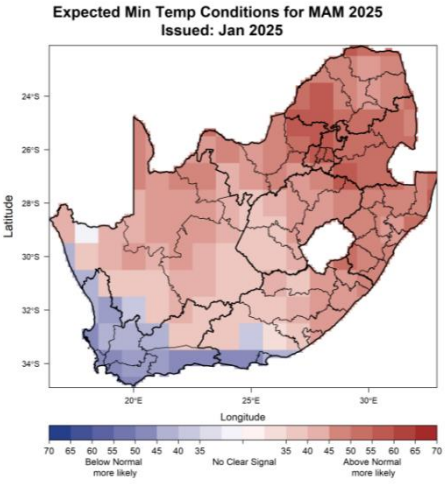
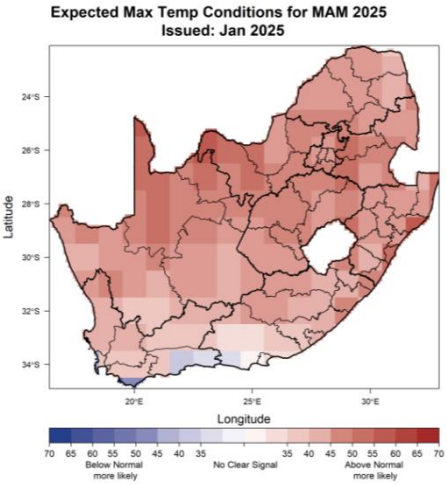


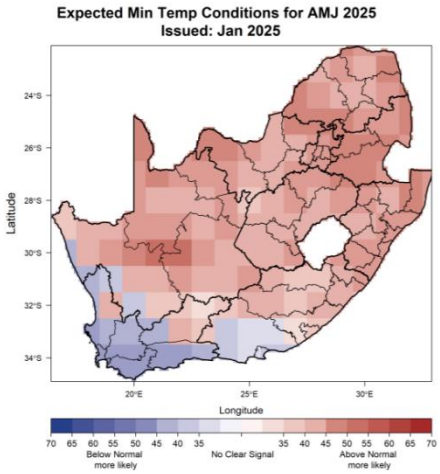
Figure 2 – Minimum and Maximum temperatures

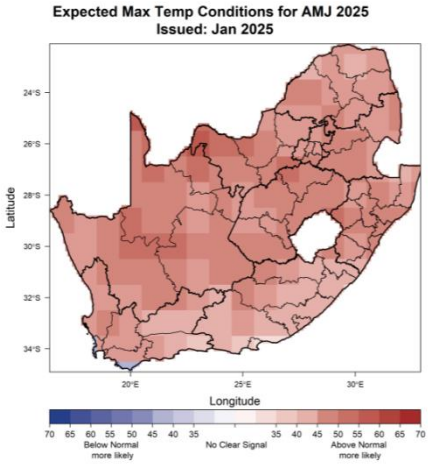












Minimum and maximum temperatures are expected to be mostly above-normal countrywide for the forecast period. However, the southern coastal areas indicate that below-normal maximum temperatures are more likely throughout the summer period.

In summary, summer rainfall areas can anticipate above-normal rainfall for the remainder of summer. Temperatures are expected to remain above-normal except for the south-western regions of the country where minimum temperatures are likely to be below-normal. Farmers are encouraged to continually check updates i.e., seasonal forecasts and utilize 7-day weather forecasts for short term planning.

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

VI. SUGGESTED STRATEGIES

A. 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.
- Roughen the soil surface to enhance rain water penetration and reduce runoff.
- Minimise compaction by reducing the passing of heavy machinery in the field.

Land preparation:

- Avoid where possible soils with pronounced plough pans.
- For sequestration of atmospheric carbon in the soil, for increased biological activity, and to better conservation of water, zero or minimum tillage is advised were possible.
- Do not expand land under crop production unnecessarily.
- Prioritise fallow land.

Crop choice and planting:

- Choose short season, locally adapted cultivars as a precautionary measure.
- Provide flexibility and diversification.
- Stick to normal planting dates if appropriate and follow the weather and climate forecast regularly.
- Consider staggered planting-spreading over weeks.

- Do not experiment with new and unknown cultivars and also avoid unnecessary capital investments.
- Always practice crop rotation.
- 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 minimise 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.
- Wheat: The strategy proposed is to scout the plants regularly, correctly identify any pests or diseases and make informed decisions regarding reaction.

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.
- Be aware of the state of regional water resources and whether it will be adequate for irrigation.
- Timing of irrigation - rather late afternoon or early evening to reduce evaporation.
- Manage irrigation so that the plant receives water only when needed.
- Consider using drip irrigation as it saves water by allowing it to drip slowly straight to the roots.
- Avoid over irrigation because that can create problems e.g., water logging and diseases.
- Adhere to water restrictions when issued.

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.
- 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

- 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 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.
- Eradicate invader plants.
- Periodically reassess the grazing and feed available for the next few months and start planning.
- Spread water points evenly.

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.

Livestock

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

G. Veld fires

Provinces and farmers are advised to maintain firebreaks in all 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 must 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 flammable material capable of carrying a veld fire across it.
- Firebreaks may be temporary or permanent.
- Firebreaks should consist of fire-resistant vegetation, non-flammable materials, bare ground or a combination of these.
- Firebreaks must be 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 favorable 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, firefighting 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 a 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. Flooding

Heavy rainfall raises the water level. When the water level is higher than the riverbanks or the dams, water flows out from the river and flooding occurs.

Preventive measures:

- Construction of proper drainage systems. Drains must be cleaned constantly as they ensure proper water irrigation.
- Mechanical land treatment of slopes such as contour ploughing or terracing to reduce the runoff coefficient.
- Construction of small water and sediment holding areas.
- Construction of floodways (man-made channels to divert floodwater).
- Terracing hillsides to slow flow downhill.
- Water pumps in rivers likely to be affected should be lifted from the riverbanks when a warning for heavy rain has been issued.

What to do when flooding is forecasted:

Avoid:

- Cutting grass in the rainy season as this can result in nutrient depletion.
- Appling fungicides and pesticide (plants and animals).
- Applying Nitrogen fertilizer as this can burn plants. Dumping fertilizer in one spot can cause the roots below the fertilizer to be burnt and die.
- Irrigation, this can result in waterlogging leading to nutrient depletion.

Other measures to implement:

- Cover Urea licks to prevent them from becoming toxic.
- Provide shelter for animals (young ones can die easily).
- Leave cultivated areas coarse.
- Relocate/ move animals to a safe place.
- Be extra cautious for pest and diseases after rain has fallen, as high moisture content and high temperatures may trigger these.
- Assume that flood water contains sewage and might be harmful for human and livestock consumption.
- Before leading livestock across a river, check whether the water level is rising. This is especially necessary if it is already raining.

Erosion

Erosion is the wearing of soil and rocks by the action of natural forces, for example, water and wind. The loose and dissolved materials move from one location to another. Erosion therefore may reduce agricultural production potential.

Preventative measures for erosion:

- Do not burn vegetation.
- Keep vegetation cover – e.g., shrubs, grass, small trees; a cover crop may be used to increase organic material and increase soil structure.
- Plant permanent vegetation e.g., perennial grasses where possible.
- Maintain any remaining vegetative cover, e.g. maize stubble during winter wheat sowing, as it acts as a blanket, traps eroded particles and reduces the wind speed at ground level.
- Plant evergreen trees growing densely and perpendicular to the typical wind direction during winter and spring as wind breaks.
- Increase water infiltration by correct management of soil e.g. reduce frequency of plough and use minimum tillage.
- Mulch: to increase infiltration, reduce evaporation, and reduce raindrop impact as well as wind erosion.
- Construct retaining walls around gardens.
- Avoid soil compaction by roughening the soil surface,
    - Furrows and tillage ridges can trap loose soil.
- Farm along contours as this reduces slope lengths.
- Prevent overgrazing.
- Practice conservation farming
    - Maximize retention of crop residues.

I. 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.

J. Severe thunderstorms/flash floods

Building resilience:

- Identify resources/facilities within 50 km 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, and after each event.

Planting of summer crops has been completed in most areas. The veld and livestock are in reasonable condition. Flooding was experienced in December and the beginning of January in several provinces that resulted in some damages to infrastructure and crops. The seasonal forecast anticipates above-normal rainfall in the summer rainfall areas during the remainder of summer. Temperatures are expected to be above-normal but below-normal minimum temperatures are anticipated in the south-western regions. The South African Weather Service cautions that there is uncertainty in the predictions on the La Niña as multiple forecasting models predict different directions i.e., either strengthening the La Niña state or moving back to a Neutral state. Therefore, it is important to keep updated on the monthly seasonal forecast.

Farmers need to remain cautious and follow the weather and climate forecasts regularly to make informed decisions. Farmers are advised to put measures in place for pests and diseases associated with wet and hot conditions as above-normal rainfall and high temperatures are anticipated in most summer rainfall areas. Farmers using irrigation should comply with water restrictions in their areas. Also, farmers must continually conserve resources in accordance with the Conservation of Agricultural Resources Act 1983, (Act No. 43 of 1983).

Although rain has been received in many summer rainfall areas, livestock should be kept in balance with carrying capacity of the veld and provided with additional feed such as relevant licks. Farmers are encouraged to reduce livestock in line with available grazing to prevent mortalities. Also, the livestock should be provided with enough water points on the farm as well as shelter during bad weather conditions. Winter rainfall areas are in their fire season; therefore, the creation and maintenance of fire belts should be prioritised along with adherence to veld fire warnings. Episodes of heatwaves have occurred as well as localized flooding and severe thunderstorms. These occurrences remain likely for the remainder of summer. Therefore, measures should be in place. Farmers are encouraged to implement strategies provided in the early warning information issued.

The users are urged to continuously monitor, evaluate, report, and attend to current Disaster Risk Reduction 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 2002, (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: https://www.dalrrd.gov.za/.

For more information contact:-

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