

**National Agro-meteorological Committee (NAC) Advisory on the
 2023 winter season
 Statement from Climate Change and Disaster Risk Reduction
 10 DALRRD 2022**

03 July 2023

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

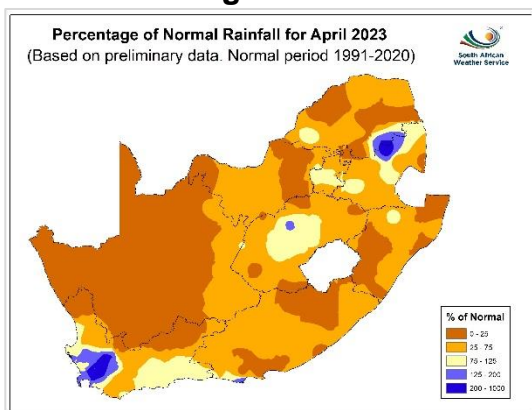


Figure 2

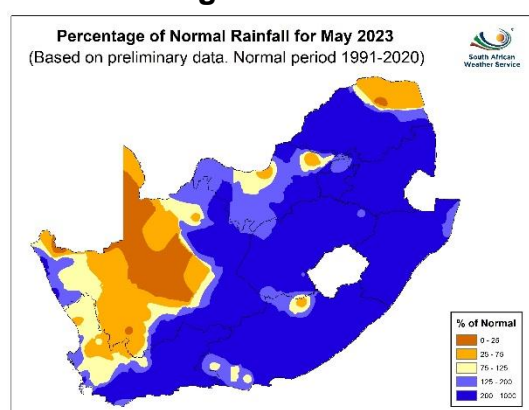


Figure 3

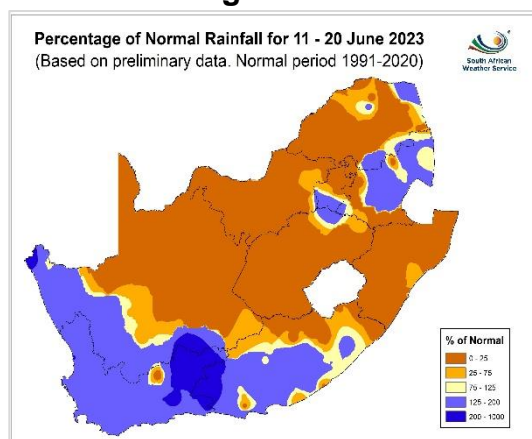
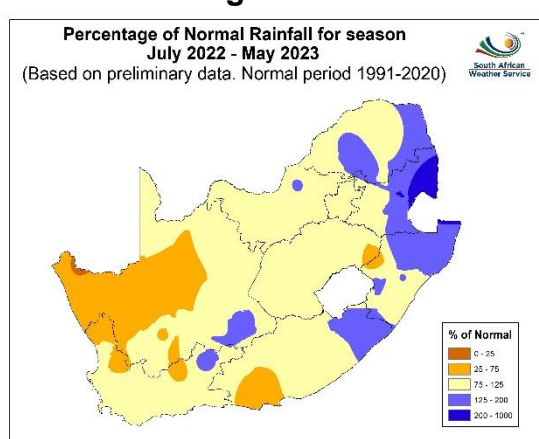
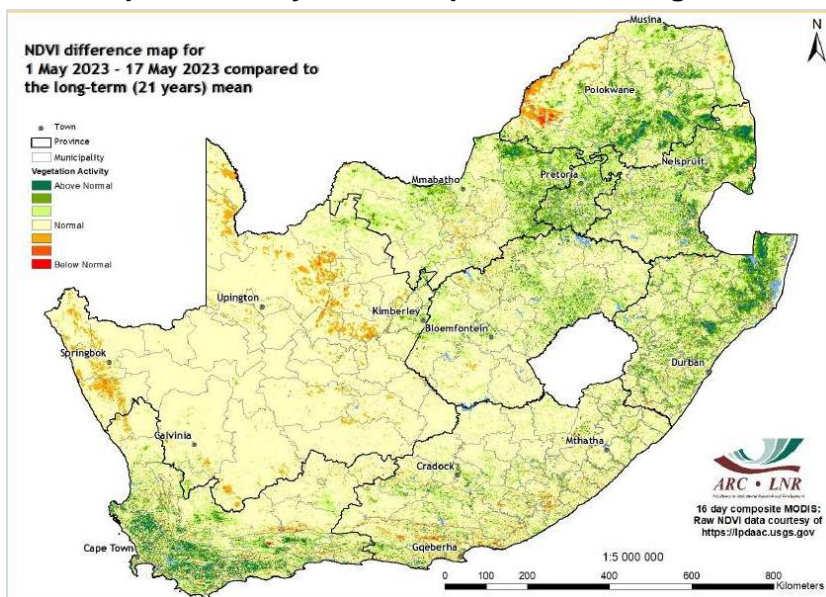


Figure 4



During April, generally dry conditions were experienced except for patches of above normal rainfall in the Western Cape and the northern parts of Mpumalanga (**Figure 1**). For May, rainfall increased significantly with most parts of the country receiving above normal rainfall except most of the western parts which received below normal rainfall (**Figure 2**). During mid-June above normal rainfall was received mainly in the south-western parts of the country and Mpumalanga (**Figure 3**). The remainder of the country received below normal rainfall. For the season July 2022 – May 2023, most parts of the country received near normal rainfall. Parts of the Northern Cape and Eastern Cape received below normal rainfall, while the far eastern parts of the country received above normal rainfall (**Figure 4**).

NDVI map: 1 – 17 May 2023 compared to the long-term mean



Compared to the historical averaged vegetation conditions, the 16-day NDVI map for May 2023 shows that many parts of the country experienced normal to above normal vegetation activity, with some pockets of below normal conditions over the central interior.

II. CONDITIONS IN THE PROVINCES DURING MAY/JUNE

Eastern Cape

The province received above normal rainfall, though due to the winter season, some areas are drying out. The conditions of crops are fair to good in the dryland maize production areas. Farmers in Sarah Baartman District in the Kou-Kamma Local Municipality were harvesting apples. The veld conditions are good in most areas except for Sarah Baartman District which reported it to be fair. The condition of livestock is fair to good. Cultivated pasture in the western part of the province is in good condition. There was a report of a veldfire incident where many sheep were lost in Toboyi village under Mnquma Local Municipality within Amathole District. Social Development has provided counselling for the farmers. The average level of major dams was at 79% in 2023, as compared to 70% of 2022.

Free State

Above normal rainfall was received in most parts. The veld has completely wilted in many areas especially in places that are situated in valleys and swamps. Winter pastures are in good condition especially those that are under irrigation. They are green and have developed good growth and bulk. Livestock condition is still good. Farmers are advised to continue with supplementary feeding during winter, dose flocks against internal parasites, and pulpy kidney especially sheep. Soil preparation for winter wheat and fodder commenced and planting operations are due especially in the eastern parts where harvesting of sugar beans has started. The window period has finally closed for planting of fast maturing cultivars. Veld fire were reported in Dewetsdorp, Sasolburg and Ladybrand. The average

level of major dams has decreased as compared to the previous year during the same period (99% in 2023; 101% in 2022).

Gauteng

Most parts received normal to above normal rainfall. Some grain farmers have experienced soyabeans damages due to excessive rain. Grain crops are at reproductive stage where moisture content has decreased, and the current drier conditions may delay them reaching proper moisture content for harvest. The veld and livestock conditions are reasonable. Horticulture farms especially cabbage have been infested by Aphids, and these have been attended to. The average level of major dams has decreased as compared to the previous year during the same period (99% in 2023; 101% in 2022).

KwaZulu-Natal

Very cold and wet conditions were experienced. Farmers are establishing winter pastures. Large numbers of farmers have made bales and hailage. At various locations across the province the crops have been affected by waterlogging. Crops are at various stages of maturing with the earlier crops already being harvested and some of the younger crop might not ripen before the end of the season. The late autumn rains did not result in any losses during the harvesting process. Land preparations have started. Livestock condition is good across the province. Dipping and deworming schedules should be adjusted according to sound veterinary and/or Extension Officials advice. Farmers have been advised to prepare winter feeding schedules. The average level of major dams is at 91%, the same as compared to the previous year during the same period.

Limpopo

The province received above normal rainfall. Crop farmers in all districts who farm under irrigation have harvested, while others, including those who produce on dry land have already planted winter crops. Livestock conditions are stabilizing though they are expected to deteriorate due to winter conditions. For that reason, farmers have been advised to provide supplementary feed and sell older livestock. The conditions of the veld and grazing land were reported to be fair in most areas, but poor where there is bush encroachment and no fencing. Incidences reported was that of flooding in Vhembe and Mopani where damages were observed on crops and this incident has been attended to. The average levels of major dams have slightly decreased to 88% in 2023, as compared to 89% of 2022.

Mpumalanga

Below normal rainfall was received. Planted crops are in good condition, while grain farmers are harvesting soya beans and maize. Horticulture is doing very well, different kinds of vegetables planted in smart boxes inside tunnels are also doing well. The veld is in fair condition and there is still reasonable veld available due to autumn rains received. Livestock is in good to fair condition and farmers will need to provide additional feed during winter. The average level of storage dams across Mpumalanga has increased to 98% 2023 compared to 95% in 2022.

Northern Cape

NIL REPORT.

North West

Above normal rainfall was received. Most summer crop farmers have completed harvesting. Livestock is in good condition and farmers have been encouraged to provide supplementary feed during winter. There were mortalities in Ramotshere Moiloa due to lightning in mid-May. Farmers have been encouraged to reduce the risk of veld fires by removing or reducing combustible materials especially on the constructed fire belts. The average level of major dams has increased as compared to previous year during the same period (90% in 2023; 82% in 2022).

Western Cape

Normal to above normal rainfall was received across the entire province during May. The average minimum and maximum temperatures were normal. The fruit harvest season is progressing very well, with pome fruit (apples and pears) and citrus fruit currently being harvested. Winter crops have been planted and have started to germinate. Veld and planted pasture conditions are normal to above normal, with below normal conditions continuing in parts of the West Coast and Central Karoo districts. Farmers continue providing supplementary fodder to livestock in the dryer areas. The livestock condition is good. An outbreak of high pathogenicity avian influenza occurred and was attended to. The average level of major storage dams has increased to 85% in 2023 as compared to 59% in 2022 during the same period.

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 2023/06/26

III. AGRICULTURAL MARKETS

Livestock domestic markets

ABSA stated that despite a reprieve in load-shedding intensity in June, demand for red meat remains soft and carcass prices continued its downward trend apparent since the start of the year. Local lamb and mutton carcass prices have started to pick up over the past month. Higher prices are usually associated with winter months, but the trend has been more muted in comparison to previous years. Porker prices continued a downward trend pressured by lower beef prices over the past weeks. Local poultry prices remain firm on the back of a weak exchange rate and elevated global prices. Being an affordable meat protein, poultry is also likely to benefit from increased demand in favour of higher-priced meat protein products such as red meat.

Producer prices for selected livestock commodities	Beef	Mutton	Pork	Poultry
Open market: Class A / Porker / Fresh whole birds (R/kg)	50.50	-	29.19	35.92
Open market: Class C / Baconer / Frozen whole birds (R/kg)	45.2	61.57	28.83	35,43
Contract: A2/A3* / IQF (*includes fifth quarter) (R/kg)	50.94	88.10	-	32.40
Import parity price (R/kg)	-	-	-	-
Weaner Calves / Feeder Lambs (R/kg)	29.86	41.93	-	-

ABSA: 26/06/2023

Major grain commodities

According to ABSA, weekly SAFEX maize prices followed the increasing global price trend, increasing by 1.8% and 2.6% for yellow maize and white maize respectively. Wheat prices followed a decreasing global price trend for the week ending June 15th, decreasing by 0.9% week on week and by 2.0% compared to a month ago. Soybean prices followed the global price trend, increasing by 1.3% for the week ending June 15th. They were 0.3% lower compared to a month ago and 14.6% lower year on year.

	Future Prices (2023/06/27) R/ton				
Commodity	Jul-23	Sep-23	Dec-23	Mar-24	Jul-24
White maize	3 801.00	3 886.00	3 969.00	4 033.00	4 097.00
Yellow maize	3 876.00	3 957.00	4 032.00	4 067.00	4 040.00
Wheat	6 661.00	6 608.00	6 438.00	6 563.00	n/a
Sunflower	8 367.00	8 580.00	8 740.00	8 674.00	n/a
Soybeans	7 975.00	8 138.00	8 346.00	8 340.00	8 335.00

SAGIS: 29/06/2023

IV. SADC REGION

The June Famine Early Warning Systems Network (FEWS NET) reported that most households across the region are engaging in harvesting, which is improving household food access and diet diversity. Staple food supplies have particularly improved in parts of the region where rainfall performance was average to above average, including surplus-producing areas of Lesotho, northern parts of Zimbabwe, central and northern Malawi, northern and central Madagascar, and northern Mozambique. In these areas, households are experiencing Minimal (IPC Phase 1). However, in southern and central Zimbabwe and southern Mozambique, dry spells in January and February resulted in significant production losses, and most poor households are likely Stressed (IPC Phase 2). However, Crisis (IPC Phase 3) outcomes persist in cyclone Freddy-affected areas of Mozambique and Malawi, the grand south of Madagascar, and conflict-affected areas of Mozambique and DRC. From June to September, there will likely be an increase in the number of households experiencing Stressed (IPC Phase 2) and Crisis (IPC Phase 3) outcomes as household food stocks decline through the dry season.

FEWS-NET further reported that staple food prices have declined in most markets following increased market supplies from the main harvest, improving household access to food. However, prices remain higher than last year and the five-year average. In areas with below-average production, prices are likely to rise in August and September, earlier than normal, as more households increase their reliance on market purchases and their food stocks decline. In Zimbabwe and DRC, local currency instability and depreciation are driving commodity price increases in local currencies, negatively impacting the ability of poor households to access food. Poor households in areas with below-average harvests are earning additional incomes for staple food purchases by increasing participation in casual labour activities in neighbouring surplus areas, including harvesting, cutting, and selling grass for thatching, brick moulding, and petty trading. In areas with an effective second season, like Zimbabwe, Malawi, and Lesotho, households also earn additional income from agricultural labour activities, including cultivating and planting short-cycle maize, winter wheat, sweet potatoes, and vegetables. Conflict-related insecurity continues driving food insecurity in Mozambique and DRC. Isolated attacks in North Kivu involving M23 and Mai-Mai armed groups continue to disrupt the return of households to their homes and their ability to participate in agricultural activities. Around 1.4 million people are newly displaced in eastern DRC at the end of the B agricultural season. In Cabo Delgado, Mozambique, there has been a decline in insurgent attacks prompting more households to return to their areas of origin for better agricultural and livelihood opportunities.

[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

Winter crops have been planted and in other areas planting is still taking place. Summer crops are being harvested. The veld and livestock are in reasonable condition. Veld fires were reported in the Eastern Cape and Free State and livestock mortalities were reported in the Eastern Cape as a result. In North West province lightning resulted in mortalities. Flooding was reported in Limpopo. The average level of major dams has increased in the Western Cape.

IV. MONTHLY CLIMATE OUTLOOK

Seasonal Climate Watch: July to November 2023

State of Climate Drivers

The El Niño-Southern Oscillation (ENSO) is currently transitioning into warm El Niño-like conditions and is moving into an El Niño state which according to the latest predictions is expected to persist through most of the summer months. It is still too early to indicate whether the this El Niño event will persist through the whole of the summer season, and therefore the close monitoring of ENSO is advised in the coming months. ENSO's impact is still limited for the current forecast period until the summer season starts which will likely be impacted by a moderate to strong El Niño state if early predictions are correct.

Figure 1 – Rainfall

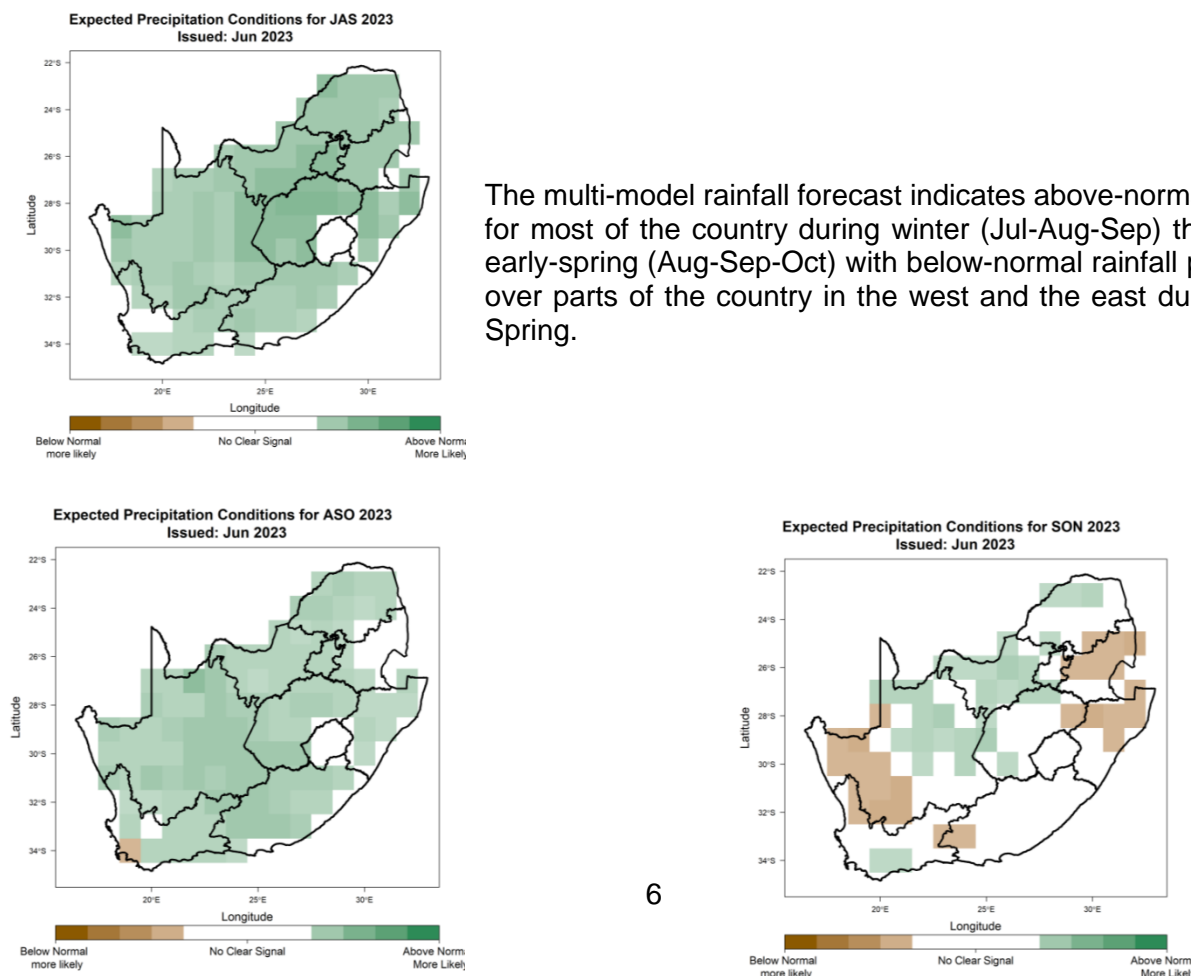
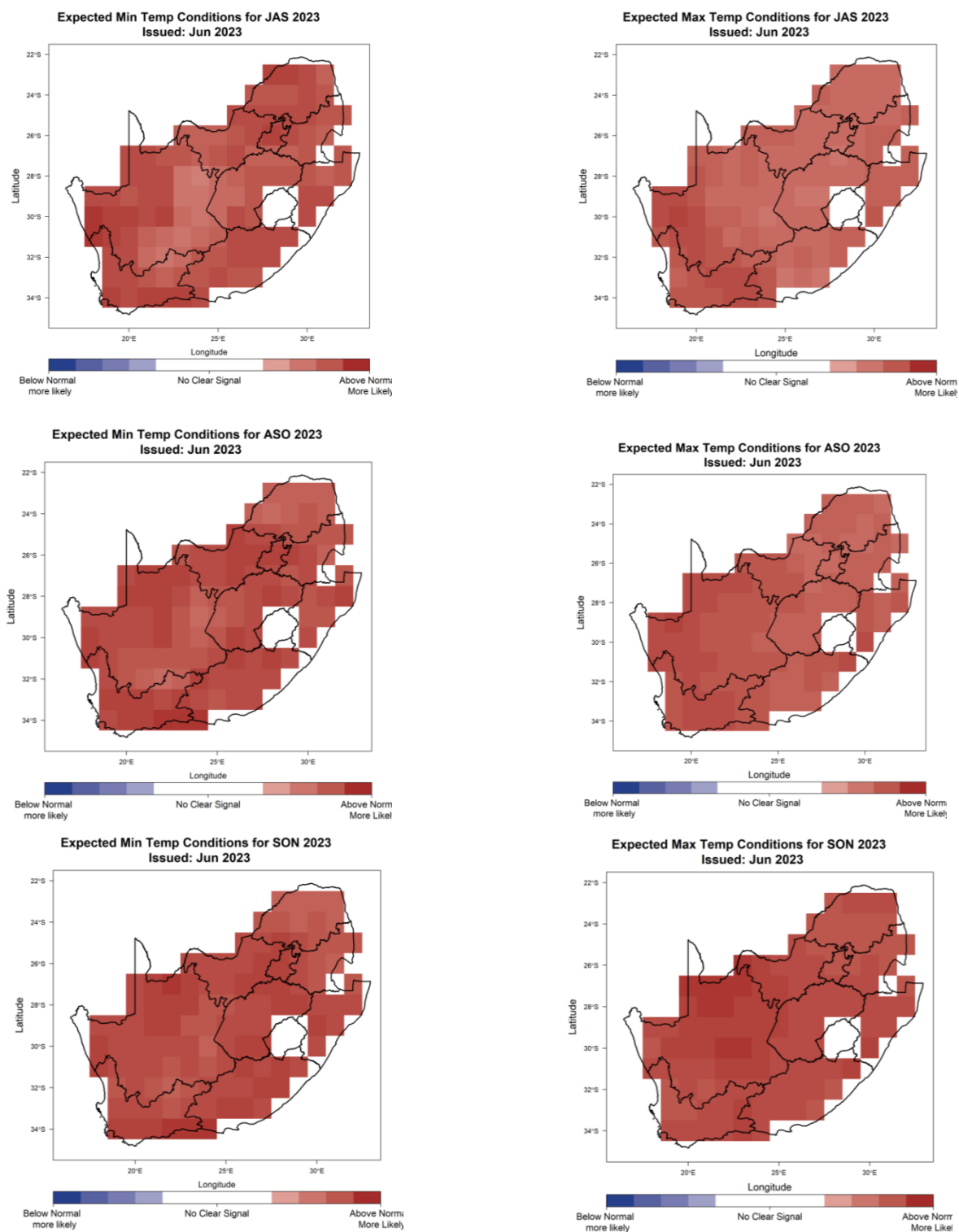


Figure 2 – Minimum and Maximum temperatures



Minimum and maximum temperatures are expected to be mostly above-normal countrywide for the forecast period.

In summary, rainfall is expected to be above-normal for most of the country during winter (Jul-Aug-Sep) through to early-spring (Aug-Sep-Oct). Temperatures are expected to be above 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 forecast in mind, the following strategies are recommended:

V. SUGGESTED STRATEGIES

A. Winter crops: 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 minimize evaporation.
- Minimise compaction by reducing the passing of heavy machinery in the field.

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.
- Stick to normal planting windows if appropriate and follow the weather and climate forecast regularly to make informed decisions.
- Consider staggered planting spreading over weeks.
- Do not experiment with new and unknown cultivars and also avoid unnecessary capital investments.
- Lay out planting rows parallel to the prevailing direction of the cold air flow.
- Keep air drainage pathways open to insure good air drainage and elimination of frost pockets.

Crop management:

- Adjust planting density accordingly.
- Consider mulching to minimise evaporation.
- Always eradicate weeds.
- Consider a conservative fertilizing strategy during dry conditions.
- Consider organic fertilization.

- Wheat: The strategy proposed is to scout the plants regularly, correctly identify any pests or diseases and make informed decisions regarding reaction.
- Prune trees properly to avoid blocking air movement. The removal of low hanging, dense branches is a must.
- Using white paint on trunks of fruits tree reduces winter trunk damage.
- Use overhead sprinkler irrigation.

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.
- Applying 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 away 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. Cold spells (snowfall and frost)

When temperatures plunge below zero, livestock and crops need to be given extra attention. Prevention is key in dealing with hypothermia, and other cold weather injuries in livestock and crops. Following are several concerns and recommendations:

Livestock:

- Hypothermia and dehydration are a serious concern in animals during cold and wet conditions. Wind-chill also adds greatly to the cold stress for animals.
- Livestock should be provided with windbreak, roof shelter and monitored for signs of discomfort (extensive shivering, weakness, lethargy, etc.)
- It is very important that livestock be provided with extra hay/forage/feed to double the calories for normal body heat maintenance during extremely cold conditions.
- It is critical that livestock have access to drinking water. Usual water sources may freeze in low temperatures and dehydration becomes a life-threatening factor. In general, livestock tend to drink less water in extremely cold conditions.
- Special attention should be paid to very young and old animals because they may be less able to tolerate temperature extremes.
- Do not shear Angora goats. Also, take extra time to observe livestock, looking for early sign of diseases and injuries.
- Severe cold-weather injuries or death primarily occur in the very young or in animals that are already debilitated.
- Cases of cold weather-related sudden death in calves often result when cattle are suffering from undetected infection, particularly pneumonia.
- Livestock suffering from frostbite don't exhibit pain. It may be up to two weeks before the injury becomes evident as freeze-damaged tissue starts to slough away. At that point, the injury should be treated as an open wound and a veterinarian should be consulted.

Crops:

- Prune out the lower portions of windbreaks to allow air to pass through to avoid the formation of a frost pocket.
- Wrapping the trunks with materials such as newspaper, cardboard, aluminium foil will prevent much of frost damage.
- With more severe frosts, canopy death can occur and trunk coverings need to extend up beyond the graft union, so the tree can reshoot from undamaged buds above the graft once the wraps are removed.
- Use heating devices such as orchard heaters to raise temperatures in plantings.

Planting of winter crops is taking place but concluded in other areas. Summer crops are being harvested. The veld and livestock are in reasonable condition in most areas. Above normal rainfall is anticipated to continue in winter rainfall areas until early spring, and temperatures are expected to be above normal countrywide.

With the seasonal forecast in mind, winter crop farmers still planting are advised to stay within the normal planting window. Although above normal rainfall is expected in winter rainfall areas, not all areas might receive the anticipated above normal rainfall that is well distributed. Farmers using irrigation should reduce the planting area in line with water restrictions in their zones. There should not be any farming activities that seek to alter the bed, banks, course, or characteristics of a watercourse as per the National Water Act 36, (Act No.36 of 1998). Farming along the flood plains is

also discouraged as per the Conservation of Agricultural Resources Act 1983, (Act No. 43 of 1983). The weather and climate forecasts should be followed regularly to make informed decisions. Farmers must continually conserve resources in accordance with the Conservation of Agricultural Resources Act 1983, (Act No. 43 of 1983).

As winter progresses, the veld continues drying out in many areas and therefore livestock should be kept in balance with carrying capacity of the veld and provided with additional feed such as relevant licks. Also, the livestock should be provided with enough water points on the farm as well as shelter during bad weather conditions including during very cold conditions. The risk of veld fires is increasing in summer rainfall areas as the veld dries up. Therefore, the creation and maintenance of fire belts should be prioritized as well as adherence to veld fire warnings. Episodes of cold spells and localized flooding resulting from frontal systems are likely to continue during winter and 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:-

<p>DALRRD, Directorate: Climate Change and Disaster Risk Reduction Private Bag X250 Pretoria 0001 Tel: 012 319 6775/ 6794 Email: MittaA@Dalrrd.gov.za</p>  <p>agriculture, land reform & rural development Department: Agriculture, Land Reform and Rural Development REPUBLIC OF SOUTH AFRICA</p>	<p>SAWS: Private Bag X097 Pretoria 0001 Tel: 012 367 6000 Fax: 012 367 6200 http://www.weathersa.co.za</p>  <p>South African Weather Service ISO 9001 Certified Organisation</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 Excellence in Research and Development</p>
---	--	--

Disclaimer: The Department of Agriculture, Land Reform and Rural Development accepts no responsibility for any application, use or interpretation of the information contained in this advisory and disclaims all liability for direct, indirect or consequential damages resulting from the use of this advisory. Unauthorised use, copying or dissemination hereof is strictly prohibited and may result in severe civil and criminal penalties.

Copyright © Department of Agriculture, Land Reform and Rural Development