

**National Agro-meteorological Committee (NAC) Advisory on the
 2022 winter and spring seasons
 Statement from Climate Change and Disaster Risk Reduction
 11 DALRRD 2021**

11 August 2022

In light of 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 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

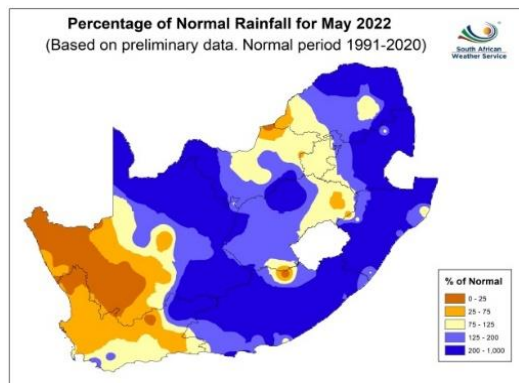


Figure 2

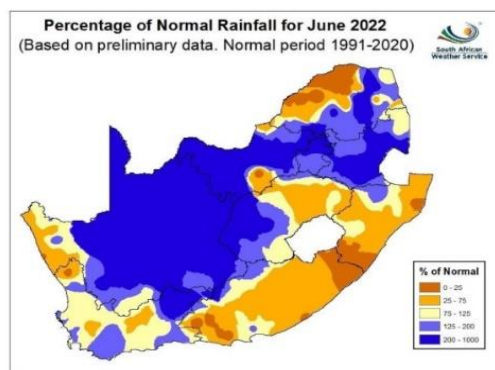


Figure 3

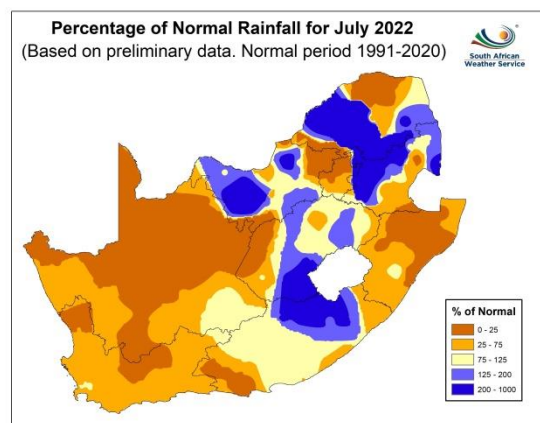
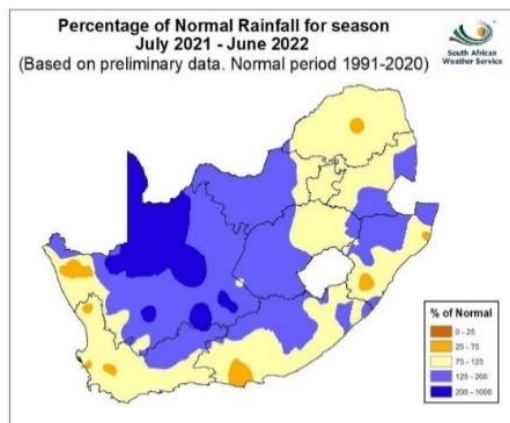
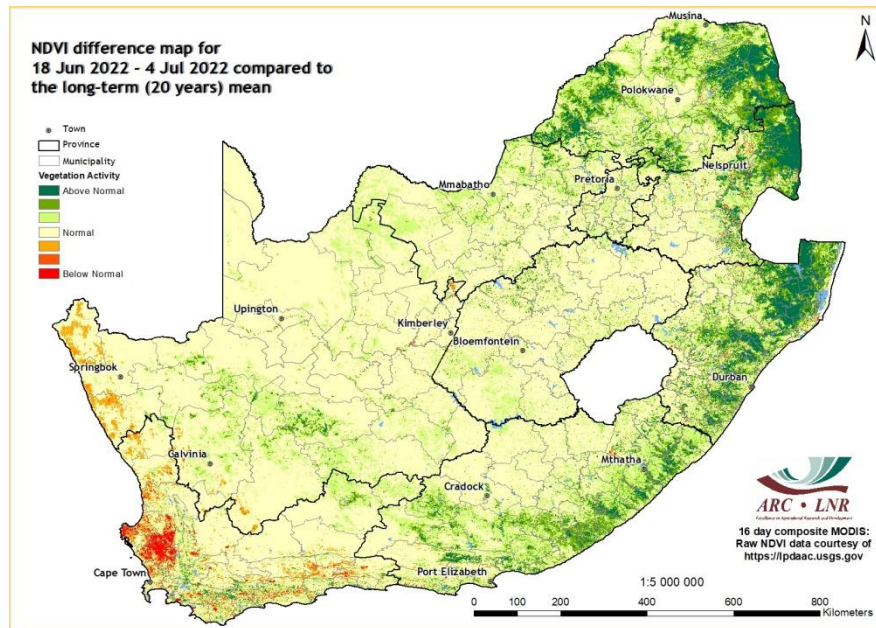


Figure 4



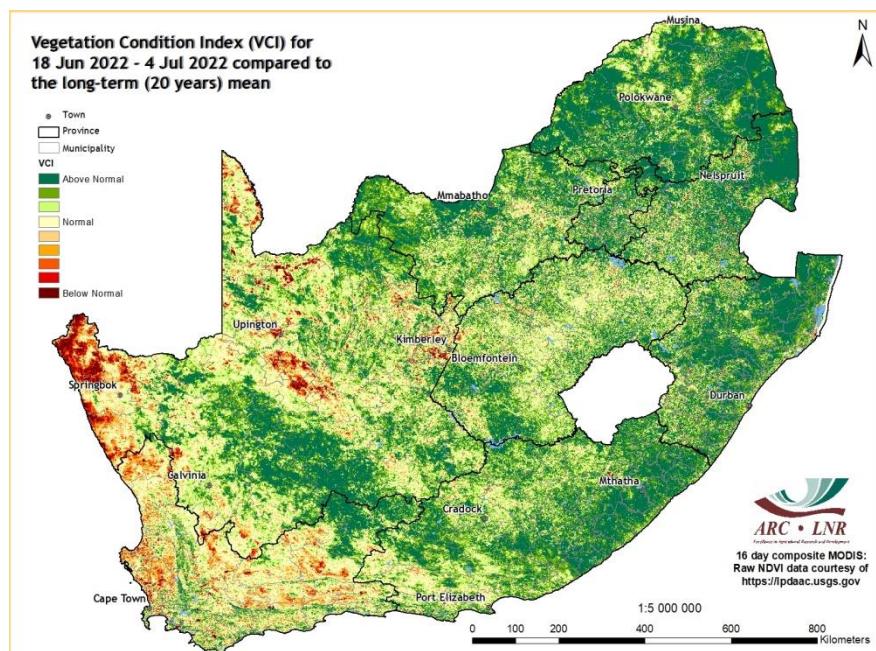
During May above-normal rainfall was received over the central and eastern half of the country but below-normal in the west (**Figure 1**). In June most parts received above-normal rainfall with the exception of the Eastern Cape, KwaZulu-Natal, northern Free State and the western parts of Limpopo Province which received near-normal to below-normal rainfall (**Figure 2**). July was dry in most areas but normal to above-normal rainfall was received in some areas in the central and north-eastern parts of the country (**Figure 3**). For the season July 2021 to June 2022, most of the central and western parts of the country received above-normal rainfall while the remainder of the country received near-normal rainfall (**Figure 4**).

NDVI map: 18 June to 04 July 2022 compared to the long-term mean



Vegetation activity has been observed to be below-normal in the winter rainfall areas including the Overberg and garden Route Districts of the Western Cape. The remainder of the country experienced normal vegetation activity becoming above-normal in the east.

VCI map: 18 June to 04 July 2022 compared to the long-term mean



The vegetation condition remains below-normal in the western parts of the Northern Cape and parts of the Western Cape. The remainder of the country experienced above normal vegetation conditions.

(The VCI is a better indicator of water stress than the NDVI).

II. CONDITIONS IN THE PROVINCES DURING MAY/JUNE

Eastern Cape

Nil Report.

Free State

Dry conditions prevailed in June. The veld is in fair condition due to rainfall received at the beginning of May and June 2022. Livestock condition is fair. Farmers are advised to continue with supplementary feeding and dosing of flocks against worms especially sheep is highly recommended. The situation has improved in the central and southern parts. Winter pastures are in excellent condition especially those that are under irrigation. They are green and have developed good growth and bulk development. Veld fires have been reported in Harrismith, Bethlehem, Brandfort, Bultfontein, Bloemfontein, Welkom, Reitz, QwaQwa, Parys, and Heilbron. There were reports of foot and mouth disease detected in Viljoenskroon and Marquard and the veterinary service is monitoring these two farms through quarantine process. Pruning of fruit trees has commenced in the eastern Free State. The average level of major dams has increased as compared to the previous year (100% in 2022; 93% in 2021).

Gauteng

The province received above-normal rainfall. The veld is in reasonable to poor condition. Outbreaks of African horse sickness, African swine fever, highly pathogenic avian influenza, bluetongue and Salmonella Enteritidis were reported in a number of areas. The average level of major dams has slightly increased (100% in 2022; 97% in 2021).

KwaZulu-Natal

Below-normal rainfall was received over most parts in the province. The provincial drought monitor for June indicates drought advisory level throughout the province. Summer pastures have stopped growing except along the coastal areas. Winter pasture's regrowth has slowed down due to mid-winter conditions of shorter day length and colder temperatures, making the grazing rotations up to two weeks longer. Land preparations for winter crops such as wheat had not started because harvesting of maize for grain is still in progress. Harvesting was delayed due to accessibility of the maize lands after the April and late May rains. Soya harvest is complete. Good crops of maize silage and hay bales (conserved feed) was grown and conserved. Livestock condition across all sectors remains good. Fair to good veld and vegetation conditions continued across the province. With the onset of frosts veld in the interior has turned brown on top but is still slightly green and wet at ground level, making burning of breaks difficult, although substantial firebreaks have been completed in most areas. Below average veld fires have been reported. The average level of major dams has increased as compared to previous year (89% in 2022; 69% in 2021).

Limpopo

The province had received normal to below-normal rainfall. Most farmers were harvesting their vegetables and winter crops. The conditions of livestock have improved especially in areas where grazing is in good condition. The grazing condition in all the districts has improved especially in areas that had received rainfall. Farmers are advised to buy feeds to supplement and to destock older animals to prevent mortalities and production loss. There was an outbreak of foot and mouth disease in Thulamela and Collins Chabane local municipalities within Vhembe district. Veterinaries are currently controlling and placing livestock in quarantine to prevent the spread. Ongoing awareness campaigns are conducted to reduce the spread of the diseases. The average level of major dams has increased to 88% in 2022, as compared to 83% of 2021.

Mpumalanga

Above-normal rainfall was received during June. Crops are being planted in different districts and land preparations and harvesting continues in other districts. Livestock is in fair condition in most municipalities. Veld is in fair to poor condition due to the dry winter season in Nkangala district. Natural pastures are in reasonable to poor condition while irrigated pastures are in good condition and growing very well. The infestation of the invaders species such as Bankrupt bush and Melkbos are still very high and reduce the quality of the veld and carrying capacity. Outbreaks of African swine fever were reported in Bohlabela district. Veterinary technicians continue to vaccinate for foot and mouth disease and Rabies in all the areas. The average level of dams is at 95% in 2022 as compared to 82% of 2021.

Northern Cape

The province received normal to below-normal rainfall. The livestock and grazing conditions are reported to be reasonable to good in some areas. Most parts continued to experience improved vegetation conditions, except for the far western parts and a few areas in the central region which are still experiencing drought. The exception is most of the province and central Karoo regions which continue to show significantly higher water levels compared to monthly year-on-year comparisons for the first few months of 2022. The average level of major dams has increased (109% in 2022; 97% in 2021).

North West

Most parts of the province received above-normal rainfall. Dryland farmers are harvesting. Livestock and grazing conditions are in reasonable to good condition. The foot and mouth disease outbreaks are still monitored by the state veterinary. Disaster Risk officials are conducting veld fire awareness campaigns. The average level of major dams has remained the same as the previous year at 80%.

Western Cape

Normal to above-normal rainfall was received across the Western Cape in June. The onset of the winter rainfall season was later than normal. The mean average temperatures were above normal. The start of the winter planting season was late. Goods rains towards the end of June alleviated the situation with grain showing good growth across the province. Citrus harvesting is progressing well with higher yields expected as in the previous season. The condition of the veld varies from below average to moderate. Planted pastures have not recovered enough. Livestock are in a reasonable condition. Drought support was provided to affected farmers. There were reports of rabies, African swine fever, avian influenza, sheep scab and Newcastle disease. Rising costs of fuel and fertilizers, load-shedding, export markets and logistical problems remain a concern. The average state of dams across the province has decreased to 64% in 2022 compared to 77% in 2021.

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 2022/08/08

III. AGRICULTURAL MARKETS

Livestock domestic markets

Absa stated that beef class A carcass prices remain firm due to short supply. Lower supply is, in turn, the effect of high feed prices and the increased risks associated with foot and mouth disease that is limiting demand for weaner calves while class C prices have decreased over the past month. This could serve as an indication of lower demand due to consumers under increased economic pressure. Lamb prices have eased from the highs experienced during June and are almost 5% cheaper. Mutton prices, in turn, have increased by 1% over the past month. Pork carcass prices have recorded decreases in monthly and weekly terms. This is despite beef and chicken prices holding firm. Local poultry prices have remained largely unchanged over the past week, with fresh whole bird prices and IQF prices changing by only 0.1%.

Producer prices for selected livestock commodities	Beef	Mutton	Pork	Poultry
Open market: Class A / Porker / Fresh whole birds (R/kg)	60.5	103.16	27.14	32.56
Open market: Class C / Baconer / Frozen whole birds (R/kg)	47.0	78.47	25.74	32.34
Contract: A2/A3* / IQF (*includes fifth quarter) (R/kg)	60.99	-	-	29.82
Import parity price (R/kg)	-	-	-	-
Weaner Calves / Feeder Lambs (R/kg)	36.10	-	-	-

ABSA: 29/07/2022

Major grain commodities

Local maize prices followed global prices and decreases, falling by 6% and 4.2% month on month for yellow and white maize respectively. Local wheat prices decreased by 1.6% on 26 July while it traded sideways month on month. Wheat production for the 2022/23 season is underway and the prospects for domestic wheat planting is favourable. Local soybean prices increased by 4.8% month on month for sunflower. Seed prices continue to decrease as global vegetable oil prices lose momentum caused by the weakening of palm oil prices as top producer Indonesia supplies in excess to the market.

Commodity	Future Prices (2022/08/02) R/ton				
	Aug-22	Sep-22	Dec-22	Mar-23	May-23
White maize	4 191.00	4 220.00	4 281.00	4 276.00	4 110.00
Yellow maize	4 161.00	4 209.00	4 279.00	4 275.00	4 124.00
Wheat	7 190.00	7 197.00	7 026.00	7 126.00	7 237.00
Sunflower	10 236.00	10 339.00	10 470.00	10 228.00	9 641.00
Soybeans	8 487.00	8 566.00	8 648.00	8 560.00	8 100.00

SAGIS: 02/08/2022

IV. SADC REGION

The July Famine Early Warning Systems Network (FEWS NET) reported that the 2022 harvest improved food security outcomes across much of the region, particularly in surplus-producing areas of Zimbabwe, Mozambique and Madagascar, central and northern Malawi, and northern parts of the Democratic Republic of Congo. Improvements will likely be marginal and short-lived in the worst drought and cyclone-affected areas of Zimbabwe, the Grand South of Madagascar, southern and central Mozambique, and parts of southern Malawi due to a lower-than-normal harvest. Crisis (IPC Phase 3) are likely in these areas between June and September, while in the Grand South of Madagascar, Crisis (IPC Phase 3) outcomes are ongoing as humanitarian assistance is mitigating food consumption deficits. Emergency (IPC Phase 4) outcomes will likely emerge in the Grand South of Madagascar in August following the severe 2021/22 drought, which has driven extremely low maize, cassava, and sweet potato harvests, and humanitarian aid is likely to end in August. Crisis (IPC Phase 3) and Stressed (IPC Phase 2) outcomes are expected to persist in neighboring areas where households have lower than average purchasing power.

FEWS NET further reported that persistent insecurity and conflict in Mozambique and DRC continue to disrupt livelihood activities. In Mozambique, attacks by insurgents in eastern Cabo Delgado in early June, including previously conflict-free areas of Ancuabe and Chiúre districts, displaced over 23,000 people, according to IOM. Before May, the insurgents frequently carried out small-scale attacks, primarily in Macomia, Mueda, Nangade, and Meluco, with small insurgent cells seeking to loot food and supplies from ungarded places. In DRC, populations in conflict-affected areas continue to be displaced, particularly in the east of the country. DRC has nearly 5.6 million internally displaced persons in 13 provinces, nearly 85 percent of whom are in North and South Kivu and Ituri provinces alone. Due to disrupted livelihoods and displacement, Crisis (IPC Phase 3) is ongoing among many IDPs. While food prices have seasonally declined, they remain elevated and higher than in 2021 and the five-year average across much of the region. The overall decrease in prices during the harvest is much lower than typical, driven by market pressure from the high global food and fuel prices. Additionally, the high international prices and continued depreciation of the local currency contribute to below-average household purchasing power, notably among those who are atypically market reliant in the post-harvest period. In Zimbabwe, macroeconomic instability, marked by spiking exchange rates, will likely remain a prime driver of rapidly increasing headline inflation.

[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

Veld and livestock condition is fair in most provinces. Winter crops have been planted in some areas. Veld fires have been reported in Free State and KwaZulu-Natal. The following incidents of diseases have been reported: foot and mouth disease in Free State, North West and Limpopo; African swine flu in Gauteng, Mpumalanga and Western Cape; African horse sickness in Gauteng; Avian influenza in Gauteng and Western Cape; rabies, sheep scab and Newcastle disease in the Western Cape. Dam levels have improved in most parts the country except for the Western Cape which reported a decrease.

V. MONTHLY CLIMATE OUTLOOK

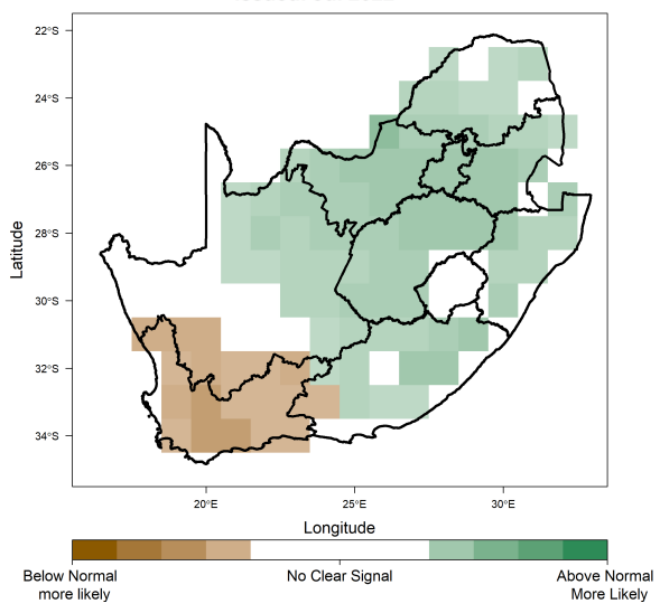
Seasonal Climate Watch: August to December 2022

State of Climate Drivers

The El Niño-Southern Oscillation (ENSO) is currently in a weak La Niña state, and forecasts indicate that it will likely remain in this state during the coming seasons. During spring, the presence of ENSO still has less of an impact than during the mid-summer period, therefore the presence of the current La Niña event is not expected to have any significant impact on rainfall at this stage. However, its evaluation into the start of the summer months is important to take note of.

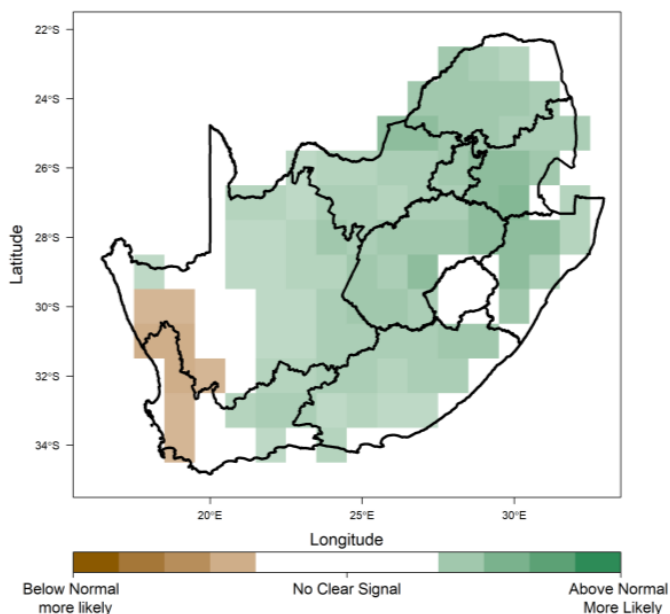
Figure 1 – Rainfall

Expected Precipitation Conditions for ASO 2022
Issued: Jul 2022



The multi-model rainfall forecast indicates below-normal rainfall for the south-western parts of the country during early- and mid-spring (Aug-Sep-Oct and Sep-Oct-Nov), with above-normal rainfall expected elsewhere. Late-spring is expected to have above-normal rainfall countrywide, with significant rainfall expected over the north-eastern parts of the country as we move to the summer months.

Expected Precipitation Conditions for SON 2022
Issued: Jul 2022



Expected Precipitation Conditions for OND 2022
Issued: Jul 2022

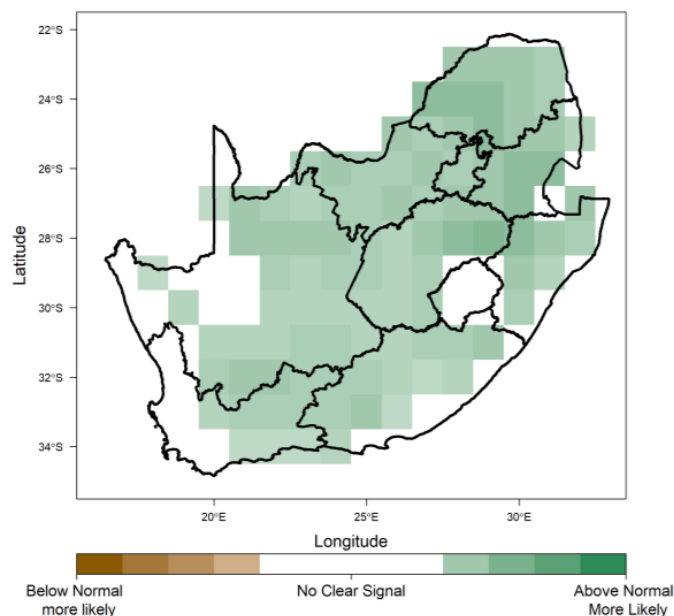
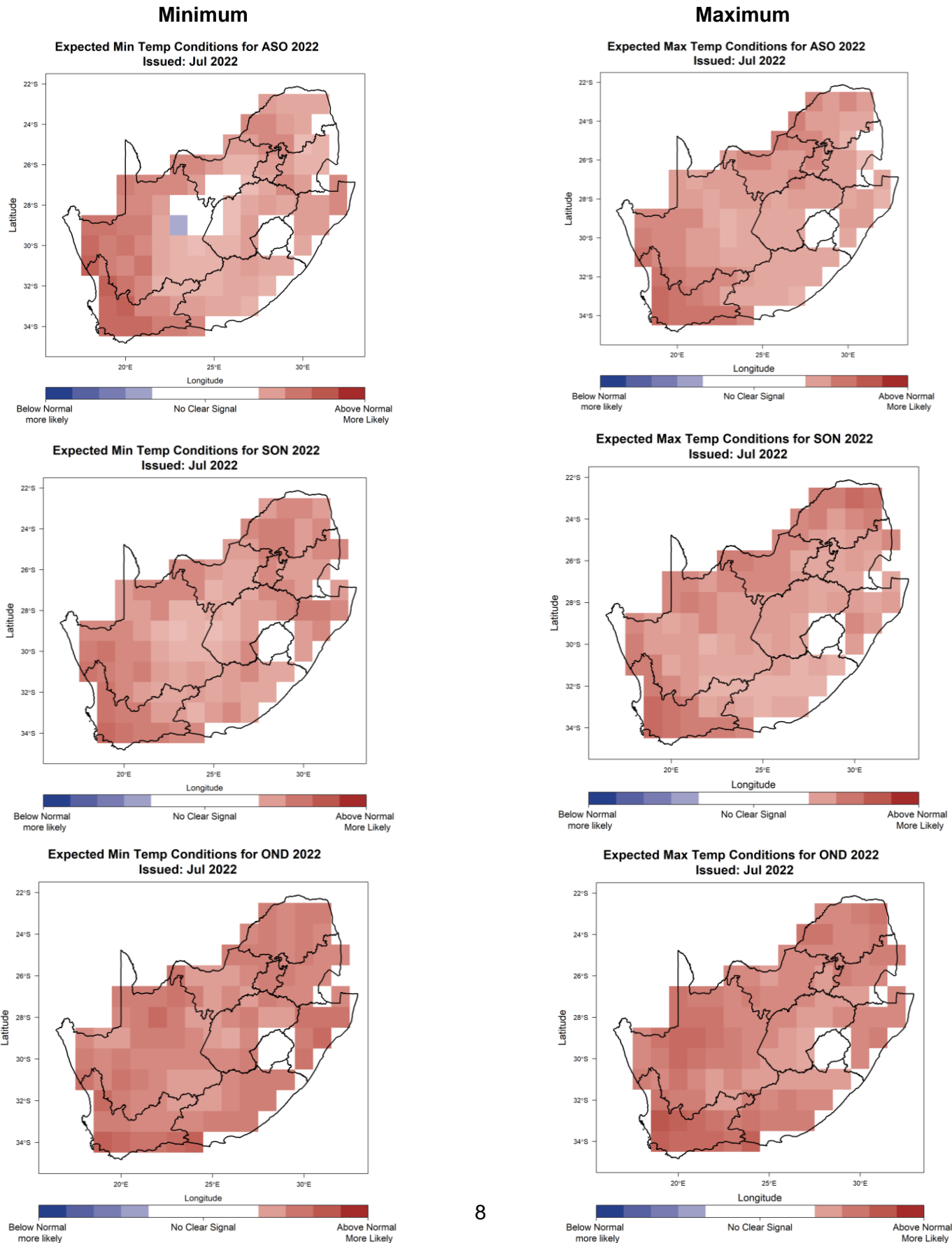


Figure 2 – Minimum and Maximum temperatures



Maximum and minimum temperatures are expected to be above-normal for most of the country.

In summary, rainfall is likely to be below-normal for the south-western parts of the country during early- and mid-spring (Aug-Sep-Oct and Sep-Oct-Nov), with above-normal rainfall expected elsewhere. Towards late-spring above-normal rainfall is expected countrywide. 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:

VI. SUGGESTED STRATEGIES

A. Winter crops: rain-fed crop production

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 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.
- Eradicate invader plants.
- Periodically reassess the grazing and feed available for the next few months, and start planning in advance.
- 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

The 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 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 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 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 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 river banks 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 river banks 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 a number of 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.

The veld and livestock are in reasonable to good condition in most areas. However, farmers are advised to keep livestock in balance with carrying capacity of the veld, and provide additional feed such as relevant licks. Winter crops that have been planted are in reasonable to good condition. The seasonal forecast anticipates below-normal rainfall for the south-western parts of the country during early- and mid-spring (Aug-Sep-Oct and Sep-Oct-Nov), with above-normal rainfall expected elsewhere. Towards late-spring above-normal rainfall is expected countrywide. Temperatures are likely to be above-normal.

Farmers must continually conserve resources in accordance with the Conservation of Agricultural Resources Act 1983, (Act No. 43 of 1983). All farmers should follow the weather and climate forecasts regularly so as to make informed decisions.

Livestock should be provided with enough water points on the farm as well as shelter during bad weather conditions. Veld fires have been reported in a few provinces. As the fire season approaches, creation and maintenance of fire belts should be prioritized as well as adherence to veld fire warnings. A few episodes of frontal systems that may bring localized flooding are likely and measures should be in place. Farmers are encouraged to implement measures 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>
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