

National Agro-meteorological Committee (NAC) Advisory on the 2022/23 summer season Statement from Climate Change and Disaster Risk Reduction 04 DALRRD 2022

30 December 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

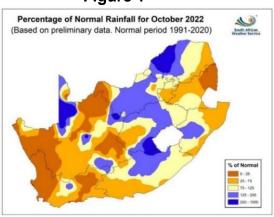


Figure 2

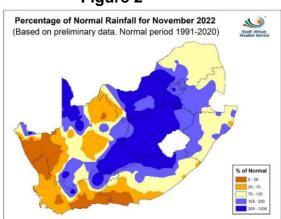
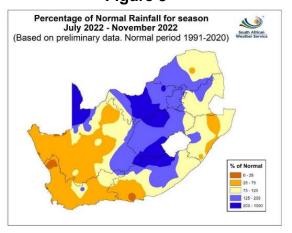
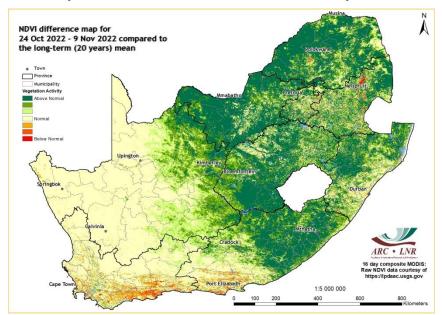


Figure 3



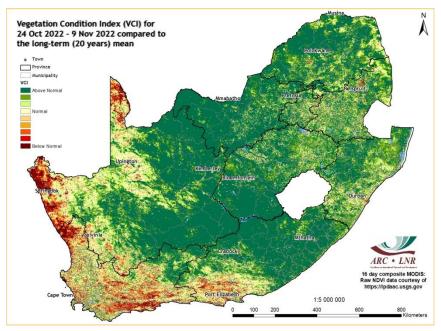
In October, above-normal rainfall was received over parts of North West, the Eastern Cape, western parts of Limpopo and some areas of the Free State while the remainder of the country received below-normal rainfall (**Figure 1**). In November, above-normal rainfall was received over most of the central parts of the country (**Figure 2**). The eastern regions of the country received near-normal rainfall while the western parts of the country received below-normal rainfall. For the season July to November 2022, above-normal rainfall was received over the central parts of the country, while the western parts of the country received below-normal rainfall and the eastern parts of the country received near-normal rainfall (**Figure 3**).

NDVI map: 24 October – 09 November 2022 compared to the long-term mean



The NDVI difference map for the end of October into early November compared to the long-term mean shows belownormal vegetation activity in the Overberg and Garden Route districts of the Western Cape and patches in the Sarah Baartman district of the Eastern Cape. In general, the central and eastern parts of the country experienced above-normal vegetation activity.

VCI map: 24 October – 09 November 2022 compared to the long-term mean



The VCI map for the end of October into early November compared to the long-term mean indicates below-normal vegetation conditions over most of the Western Cape, Sarah Baartman district of the Eastern Cape, the western parts and extreme northern parts of the Northern Cape. The rest of the country indicated above-normal vegetation conditions.

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

II. CONDITIONS IN THE PROVINCES DURING NOVEMBER/DECEMBER

Eastern Cape

Good rains were received resulting in good cropping conditions in the eastern segment of the province whereas it was reasonable in the west and poor in Nelson Mandela Bay Metro. Excessive rainfall delayed planting in some areas. The veld condition is reported to be poor to fair in parts of Sarah Baartman and Joe Gqabi districts that border the Karoo. Rangeland is in reasonable condition in Alfred Nzo district and Mhlontlo local municipality in the OR Tambo district while Amathole district reported good to very good veld conditions. Pastures are in reasonable to good condition. The eastern part of the province reported good livestock conditions while in the western they are in reasonable to poor condition. Farmers were encouraged to follow best farming practices to mitigate the conditions. Brown locust control is continuing. The average level of major dams has increased to 78% in 2022, as compared to 58% of 2021.

Free State

Heavy rainfall was received especially in the southern and central parts of the province. Wheat is almost at maturity stage in the western parts and central regions. Maize, field beans and sunflower have been planted. The veld has fully recovered due to above-normal rainfall received. Summer pastures under irrigation are in good conditions. Farmers were advised to continue with supplementary feeding for the breeding, lactating and pregnant livestock. Flash flooding occurred in Kroonstad, Koppies, Zastron, Heilbron, Sasolburg, Dewetsdorp and Ficksburg with hail damages to fruit such as peaches and apples. Assessments of damages are being conducted in this regard. Brown locust has been detected between Zastron and Wepener and controls have been implemented. The average level of major dams has decreased as compared to the previous year during the same period (103% in 2022; 106% in 2021).

Gauteng

Above-normal rainfall was received in most parts and led to flooding in some areas. Some of the farmers started very late to prepare the soil due to lack of rain but some have already planted. The veld conditions have improved drastically due to rainfall received. The body condition of many livestock has improved. There were cases of African swine fever in Ekurhuleni and in the city of Johannesburg, and control measures need to be put in place by farmers. A rabies outbreak was reported and ring-block vaccinations were conducted in Saxonwold and in Chloorkop. Furthermore, a mass dog vaccination campaign was conducted in Terenure. Livestock on farms that tested positive for foot and mouth disease in the city of Tshwane remain under quarantine. The average level of major dams has slightly decreased as compared to the previous year during the same period (101% in 2022; 102% in 2021).

KwaZulu-Natal

Below-normal rainfall was received over the northern parts of the province. Hlabisa and Mathuba local municipalities are experiencing mild drought and this has delayed planting preparations. In other areas the planting was delayed by excessive wet weather. Last of the winter wheat has been harvested. Summer pastures are growing. Fair to good veld and vegetation conditions continued across the province due to rain and warm temperatures. Livestock condition is variable across the province. Less veld fires have been reported than the long-term average. Flooding has been reported in some parts which led to damages to bridges. The province is requested to conduct necessary assessments and attend to the matter in line with the legislation. The average level of major dams has increased as compared to the previous year during the same period (85% in 2022; 70% in 2021).

Early Warning Unit: CCDRR

Limpopo

Normal rainfall was received. Most farmers under irrigation planted inter seasonal crops such as spinach, sweet potato, beetroot and green pepper. Dryland farmers have planted maize, sorghum, groundnuts and beans in most of the areas. However, some areas delayed planting due to heavy rains. The veld condition and livestock are in reasonable condition. In Vhembe district, monitoring and controls of foot and mouth disease continues. There were reports of Tuta absoluta in Nwanedi, Bochum and Mohodi and oriental fruit fly which affected citrus farmers. Farmers are advised to implement control measures. Fall armyworm has been reported in all districts these incidents have been attended to. There were isolated incidents of veld fires in Capricorn and Waterberg districts and assessments are underway. The average level of major dams has increased to 87% in 2022, as compared to 83% of 2021.

Mpumalanga

Normal to above-normal rainfall with isolated areas of flooding has been reported and assessments are underway. There were persistent heatwaves in Ehlanzeni district. In Nkangala and Bohlabela districts maize, sunflower and vegetables have been planted and are in good condition. Livestock is in reasonable to good condition in Nkangala, Gert Sibande and Ehlanzeni districts but poor in parts of Bohlabela district. Mkhondo local municipality and some parts of Ehlanzeni and Nkangala districts experienced severe thunderstorm that resulted in damages to agricultural infrastructure and crops. Assessments are being conducted. The average level of storage of dams across the province has increased to 97% 2022 compared to 87% in 2021.

Northern Cape

Below-normal rainfall was received in most areas; however flooding has been reported in some parts of the province. Farmers have planted summer crops such as maize, soya beans and groundnuts. Places around Loeriesfontein and the Roggeveld are showing signs of deteriorating veld conditions. There has been a significant improvement in vegetation condition in general. The conditions of livestock have improved drastically. The average level of major dams across the province has increased to 109% 2022 compared to 100% in 2021.

North West

The province in general received good rains. Summer crops have been planted and are in good condition. The veld and livestock are in good to very good condition. Wetter and hot conditions could lead to a season with more diseases and parasites and farmers need to be in the lookout for these. Farmers have been advised to vaccinate for insect borne diseases. Veld fires have been reported in some parts of the province and assessments are underway. The average level of major dams has increased as compared to previous year during the same period (84% in 2022 and 71% in 2021).

Western Cape

Normal to below-normal rainfall was received over most areas of the province, with the exception of the summer rainfall areas that received normal to above-normal rain. Average temperatures were normal. Harvesting of winter grain crops has concluded in both Swartland and Southern Cape areas. Yields varied between areas from average to below average. The grain quality was very good. The stone fruit and blueberry harvest has begun. Veld and planted pasture conditions remain poor due to low rainfall. Livestock is in a reasonable condition as farmers continue to provide supplementary feed. Incidences of brown locust swarms were reported, controlled and monitored in the Central Karoo. The average storage of dams has decreased to 62% in 2022 compared to 82% 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 2022/12/26

III. <u>AGRICULTURAL MARKETS</u>

Livestock domestic markets

Absa reported that class A beef prices continued to decrease with class C also decreasing further as a result of less demand by consumers. Lamb and mutton prices also decreased due to constrained consumer demand coupled with a stronger exchange rate and lower global ovine prices. It is likely that prices will remain subdued into the new year. Porker and baconer prices increased. Chicken prices rose in November as a result of high global prices, weakening exchange rate and strong demand locally.

Producer prices for selected livestock commodities	Beef	Mutton	Pork	Poultry
Open market: Class A / Porker / Fresh whole birds (R/kg)	59.6	-	38.36	36.03
Open market: Class C / Baconer / Frozen whole birds (R/kg)	48.6	70.33	36.94	35.49
Contract: A2/A3* / IQF (*includes fifth quarter) (R/kg)	60.10	92.86		32.42
Import parity price (R/kg)	-	-	-	
Weaner Calves / Feeder Lambs (R/kg)	37.59	41.00	-	

ABSA: 2022/12/19

Major grain commodities

According to ABSA, month-on-month local maize prices decreased by 1.5% and 1.4% for yellow maize and white maize respectively. Local wheat prices decreased following global price decreases. SAFEX soybean prices increased month-on-month due to stronger global prices, and sunflower seed prices increased week on week.

	Future Prices (2022/12/06) R/ton							
Commodity	Dec-22	Mar-23	May-23	Jul-23	Sep-23			
White maize	4 924.00	4 850.00	4 512.00	4 447.00	4 506.00			
Yellow maize	4 770.00	4 740.00	4 461.00	4 428.00	4 515.00			
Wheat	6 654.00	6 755.00	6 817.00	6 891.00	6 871.00			
Sunflower	10 700.00	10 500.00	9 714.00	9 888.00	n/a			
Soybeans	10 510.00	10 310.00	9 044.00	9 115.00	9 235.00			

SAGIS: 2022/12/08

IV. SADC REGION

The November Famine Early Warning Systems Network (FEWS NET) reported that many poor households across the region are facing Crisis (IPC Phase 3) outcomes during the lean season as households are market reliant with below-average purchasing power. The situation is most concerning in southern Madagascar, where humanitarian assistance drives Crisis (IPC Phase 3) outcomes, but Emergency (IPC Phase 4) outcomes are likely in the absence of ongoing humanitarian assistance that is currently funded through January 2023. In southern and extreme northern parts of Zimbabwe, southern parts of Malawi, Angola, Lesotho, and southern and northern Mozambique, lower than normal access to food stocks and income due to prolonged dry spells during the 2022 season, conflict, and high prices are likely to drive Crisis (IPC Phase 3) outcomes until the start of the harvest in March 2023. The start of the 2022/23 agriculture season in March 2023 is expected to improve agricultural labor opportunities across most of the region. However,

labor wages for poor households will likely trend below average due to increased competition and lower-than-normal liquidity for better-off households. Poor households are expected to engage in on and off–farm casual labor activities through February to earn income to purchase staple foods at markets. The start of the green harvest in March, followed by the main harvest in April and May, will improve food availability and access for most households, with very poor and poor households likely to earn income from harvest labor opportunities.

FEWS NET further said that conflict remains a key driver of food insecurity in Cabo Delgado, Mozambique, and most of eastern DRC. Since September, militia attacks have increased in Cabo Delgado and neighbouring parts of Nampula province as insurgents seek access to food and resources. In the DRC, there have been increased attacks by the M23 rebels in the eastern region. While the East African community has reinforced military personnel and equipment in Goma, the M23 rebel group will likely increase violent activities. In Ituri and North Kivu, the conflict has also been escalating. Crisis (IPC Phase 3) outcomes are expected through March for all conflict-affected areas of DRC and Mozambique. However, the worst-affected poor households in DRC's Rwanguba and Jomba in Rutshuru territory and Drodro and Mangala in Djugu territory are likely facing Emergency (IPC Phase 4) outcomes due to a lack of access to food and income. Staple food prices in the region's most acutely food insecure areas are above the five-year average and expected to increase through the lean season. In Mozambigue, DRC, Zimbabwe, Lesotho, and Angola, maize grain prices in most monitored markets in September are up to 50 percent above the five-year average, while in Malawi, prices increased to over 130 percent above the five-year average. Increases in fuel prices are resulting in surging transportation costs, driving increases in staple food prices across the region. Localized market supplies have also declined due to increased market demand, as most poor households exhausted their food stocks before September. Price increases are expected to continue through March until the start of the 2023 harvest in most countries, driving below-average household purchasing power.

[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

Good rains were received in summer rainfall areas and farmers have planted although there were delays due to heavy falls. The veld and livestock are in reasonable to good condition. Severe thunderstorms damaged crops and infrastructure in Mpumalanga and Free State. In Gauteng and KwaZulu-Natal flooding damaged infrastructure. Brown locust outbreaks continue to be controlled in the Free State, Northern Cape, Eastern Cape and Western Cape provinces. Foot and mouth disease quarantine and monitoring is continuing in Vhembe district of Limpopo and on a few farms in the city of Tshwane in Gauteng. The average level of major dams has increased in the majority of provinces.

IV. MONTHLY CLIMATE OUTLOOK

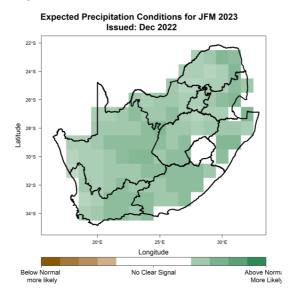
Seasonal Climate Watch: January to May 2023

State of Climate Drivers

The El Niño-Southern Oscillation (ENSO) is currently in a La Niña state, and forecasts indicate that it will likely remain in this state during the remainder of the 2022/23 summer season and return to a neutral state during Autumn. The presence of a La Niña event usually has its strongest impact on

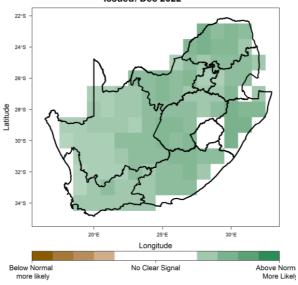
rainfall during the mid-summer months. With the continued persistence of the La Niña event, there is a high chance that it will have its usual effect on South Africa, which is generally for above-normal rainfall and below-normal temperatures over the summer rainfall areas.

Figure 1 - Rainfall



The multi-model rainfall forecast indicates above-normal rainfall for most parts of the country for all predicted seasons.





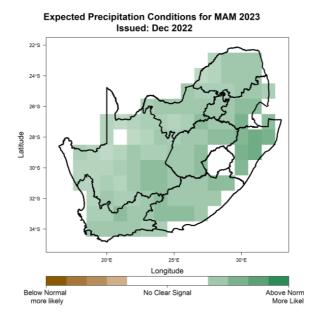


Figure 2 - Minimum and Maximum temperatures

Expected Min Temp Conditions for JFM 2023

Minimum

22°S - 28°S - 28°S - 30°S - 32°S - 32

Expected Min Temp Conditions for FMA 2023 Issued: Dec 2022

25°E

No Clear Signal

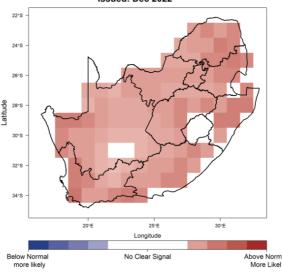
Above Norma More Likely

8

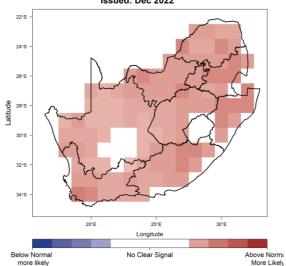
20°E

Below Normal

Eε

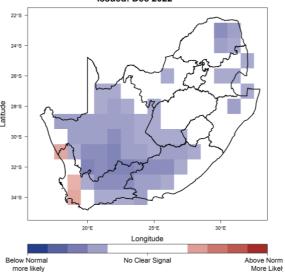


Expected Min Temp Conditions for MAM 2023 Issued: Dec 2022

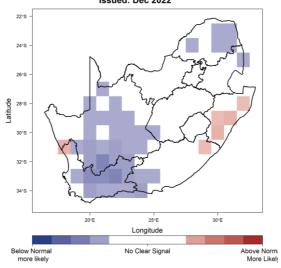


Maximum

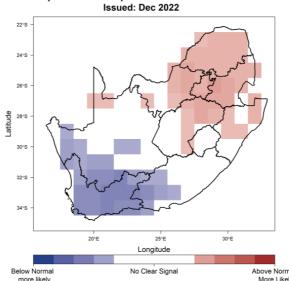
Expected Max Temp Conditions for JFM 2023 Issued: Dec 2022



Expected Max Temp Conditions for FMA 2023 Issued: Dec 2022



Expected Max Temp Conditions for MAM 2023



Minimum temperatures are still expected to be mostly above-normal countrywide, however, maximum temperatures are expected to be below-normal over most of the country during late-summer (Jan-Feb-Mar) and early-autumn (Feb-Mar-Apr).

In summary, above-normal rainfall is expected for the remainder of summer with below-normal maximum temperatures. 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. 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.
- 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 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

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:
 - o 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.
 - o Sow grass.
 - o 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.
- 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 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,
 - o 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.
 - o 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.

Most summer crop farmers have planted although others were delayed by heavy rainfall. The veld and livestock are in reasonable to good condition in most areas. Above-normal rainfall is expected for the remainder of summer. Maximum temperatures are expected to be below-normal in many areas.

With the seasonal forecast in mind, farmers are advised to remain within the planting window. It is advised that measures remain in place for pests and diseases associated with wet and hot conditions as above-normal rainfall is anticipated. Moreover, it is important for farmers to follow the weather forecast regularly so as to make informed decisions. Farmers using irrigation should comply with water restrictions in their areas. Farmers must continually conserve resources in accordance with the Conservation of Agricultural Resources Act 1983, (Act No. 43 of 1983).

Farmers are advised to keep livestock in balance with carrying capacity of the veld, and provide additional feed such as relevant licks. Livestock should be provided with enough water points on the farm as well as shelter during bad weather conditions. Winter rainfall areas are dry and conditions are favourable for veld fires. Therefore the creation and maintenance of fire belts should be prioritized as well as adherence to veld fire warnings. Episodes of flooding resulting from rain bearing weather systems have occurred and will continue; precautionary measures should be in place. Heat waves may occur during the remainder of summer and therefore measures to combat these 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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