Food and Agriculture Organization of the United Nations

BAY states Planting Season Preparedness based on 2023 NiMet Climate Forecast

Food and Agriculture Organization of the United Nations

Length of Season in Borno State

1.1 Length of Season for Borno State in 2023

The length of the growing season is anticipated to vary between 85 to 156 days. Abadam is predicted to have the shortest length of growing season of 85 days while Shani from the southern part of the state is likely to have the longest length of growing season of about 156 days.

1.2 Predicted Rainfall Amount for Borno State in 2023

The annual rainfall for Borno State is predicted to range from 440 mm to 806 mm of rainfall. Abadam is likely to have the lowest annual rainfall amount of 440 mm while, Bayo in the southern part of the state is anticipated to have the highest annual rainfall total of 873 mm.

1.3 Cessation of Rainfall for Borno State in 2023

The growing season for 2023 is likely to start from 21st May to 4 July. The earliest onset is predicted to be 21st May around places like Shani and Biu while the northern part of the state is expected to have onset between 2nd June to 4h July in Abadam. Cessation is predicted to be on 29th September around Abadam LGA, while the latest is around 23rd October in Shani LGA

Length of Season in Adamawa State

1.1 Length of Season for Adamawa State in 2023

The length of the growing season is anticipated to vary between 135 days to 185 days. Madagali is predicted to have the shortest length of growing season of 135 days while Ganye from the southern part and Fufore from the Central part of the state are likely to have the longest length of growing season of about 185 days.

1.2 Predicted Rainfall Amount for Adamawa State in 2023

The annual rainfall for Adamawa state is predicted to range from 881 mm to 1320 mm of rainfall. Communities from the northern part of the state such as Madagali are likely to have the lowest annual rainfall amount of 881 mm while, Ganye in the southern part of the state is anticipated to have the highest annual rainfall total of 1320 mm.

1.3 Onset and Cessation for Adamawa State in 2023

The growing season for 2023 is likely to start from 27th April to 30th May. The earliest onset is predicted to be 27th April around places like Ganye and Mayo-Belwa while the northern part of the state is expected to have onset between 22nd May to 30st May. Cessation is predicted to be on 12th October around Madagali LGA, while the latest is around 30th October in Ganye LGA.

Length of Season in Yobe State

1.1 Length of Season for Yobe State in 2023

The length of the growing season is anticipated to vary between 78 days to 124 days. Yunusari is predicted to have the shortest length of growing season of 78 days while Gulani from the southern part of the state is likely to have the longest length of growing season of about 124 days.

1.2 Predicted Rainfall Amount for Yobe State in 2023

The annual rainfall for Yobe State is predicted to range from 500 mm to 570 mm of rainfall. Tarmuwa and Jakusko are likely to have the lowest annual rainfall amount of 500 mm while, Gulani in the southern part of the state is anticipated to have the highest annual rainfall total of 570 mm.

1.3 Onset and Cessation of Rainfall for Yobe State in 2023

The growing season for 2023 is likely to start from the 3rd of June to the 1st of July. The earliest onset is predicted to be the 3rd of June around places like Gulani and Gujba while the northern part of the state is expected to have on-set between 16th June to 1st July. Cessation is predicted to be on 16th September around Yunusari LGA while the latest is around 3rd October in the Gulani area.

TABLE. PREDICTED ONSET, CESSATION DATES, LENGTH OF GROWING SEASON, SEASONAL AMOUNT OF RAINFALL & FLOOD VULNERABILITY FOR BORNO STATE

LGA	Onset	End of Season	Length of Season	Annual Rainfall(mm)	Flood Risk
Abadam	4-Jul	29-Sep	87	495	MFRA*
Askira/Uba	27-May	20-Oct	146	848	
Bama	7-Jun	13-Oct	128	477	
Bayo	24-May	21-Oct	150	873	MFRA*
Biu	23-May	19-Oct	145	842	
Chibok	29-May	19-Oct	143	733	
Damboa	2-Jun	16-Oct	136	703	
Dikwa	13-Jun	10-Oct	120	459	MFRA*
Gubio	23-Jun	5-Oct	104	456	
Guzamala	25-Jun	3-Oct	100	461	
Gwoza	2-Jun	16-Oct	136	702	
Hawul	24-May	21-Oct	150	771	
Jere	12-Jun	11-Oct	121	462	
Kaga	8-Jun	13-Oct	127	473	
Kala/Balge	15-Jun	9-Oct	116	455	
Konduga	9-Jun	12-Oct	125	469	
Kukawa	27-Jun	2-Oct	98	466	MFRA*
KwayaKusar	23-May	22-Oct	152	779	
Mafa	14-Jun	10-Oct	118	457	MFRA*
Magumeri	16-Jun	8-Oct	115	454	
Maiduguri	12-Jun	11-Oct	121	461	
Marte	19-Jun	7-Oct	110	453	MFRA*
Mobbar	29-Jun	1-Oct	93	475	MFRA*
Monguno	21-Jun	6-Oct	107	454	
Ngala	17-Jun	8-Oct	112	453	
Nganzai	20-Jun	6-Oct	108	453	
Shani	21-May	23-Oct	156	806	
Hawul	24-May	21-Oct	150	771	

TABLE. PREDICTED ONSET, CESSATION DATES, LENGTH OF GROWING SEASON, SEASONAL AMOUNT OF RAINFALL & FLOOD VULNERABILITY FOR ADAMAWA STATE

LGA	Onset	End of Season	Length of Season	Annual Rainfall(mm)	Flood Risk
Demsa	22-May	22-Oct	153	1097	HFRA**
Fufore	7-May	24-Oct	170	1143	HFRA**
Ganye	27-April	30-Oct	185	1320	
Girei	21-May	17-Oct	149	965	
Gombi	11-May	22-Oct	165	1095	MFRA*
Guyuk	16-May	19-Oct	156	1020	MFRA*
Hong	22-May	16-Oct	147	951	
Jada	1-May	28-Oct	180	1258	
Lamurde	13-May	21-Oct	152	1068	
Madagali	30-May	12-Oct	135	881	
Maiha	16-May	19-Oct	156	1016	
Mayo-Belwa	3-May	27-Oct	177	1220	
Michika	26-May	13-Oct	140	909	
Mubi North	23-May	16-Oct	146	943	
Mubi South	21-May	16-Oct	148	961	
Numan	11-May	22-Oct	164	1084	
Shelleng	18-May	18-Oct	154	1001	HFRA**
Song	16-May	19-Oct	156	1021	
Toungo	5-May	26-Oct	174	1188	
Yola South	23-May	29-Sept	149	1124	HFRA**
Yola North	22-May	2-Oct	153	1138	HFRA**

Table. PREDICTED ONSET, CESSATION DATES, LENGTH OF GROWING SEASON, SEASONAL AMOUNT OF RAINFALL FLOOD VULNERABILITY FOR YOBE STATE

LGA	Onset	End of Season	Length of Season	Annual Rainfall(mm)	Flood Risk
Bade	24-Jun	19-Sep	87	507	MFRA*
Bursari	24-Jun	20-Sep	88	506	HFRA**
Damaturu	12-Jun	26-Sep	106	512	
Fika	7-Jun	29-Sep	114	532	
Fune	12-Jun	26-Sep	106	512	
Geidem	23- Jun	20-Sep	89	506	MFRA*
Gujiba	6-Jun	30-Sep	116	537	
Gulani	3-Jun	3-Oct	124	568	
Jakusko	21-Jun	21-Sep	93	500	MFRA*
Karasuwa	27-Jun	18-Sep	83	513	MFRA*
Machina	2-Jun	17-Sep	80	519	
Nangere	12-Jun	26-Sep	106	513	
Nguru	27-Jun	18-Sep	83	514	
Potiskum	11-Jun	27-Sep	108	517	
Tarmuwa	18-Jun	23- Sep	97	500	
Yunusari	30-Jun	16-Sep	78	523	MFRA*
Yusufari	1-Jul	16-Sep	77	527	

Drought-Related Measures on Crop Activities

- Drought happens when a region receives less than average rainfall insufficient for crop water requirement.
- Select farm sites located in lowland or midland areas and avoid upland areas.
- Procure seeds of extra-early or early maturing or drought-tolerant crop varieties ahead of the planting season.
- Millet and sorghum are more droughts tolerant than rice or maize, while groundnut is more drought tolerant than cowpea.
- Construct half-moon basins across the slope or along contours on the farm upland area.
- Dig planting holes 2 to 5 cm deep before the first rain across the farm area.
- Apply a handful of organic or animal manure into the planting hole before the first rain.
- Plant the recommended seeds into the holes immediately after the first heavy rain.
- Or dry plant millet towards the onset or first heavy rain and preferably end of May
- Construct bunds across the slope to trap moisture in the half-moon basins
- Construct basins in the lowland area, and reinforce them with dykes or bunds to trap and conserve runoff from the farm early in the season.
- Apply the conserved water as supplementary irrigation during intermittent drought periods during the rainy season
- Apply grass or polythene mulch on the soil surface after weeding to conserve soil moisture
- Harvest rainwater from house rooftops into tanks and reservoirs and filter for domestic use
- Plant trees around and within the farm to increase precipitation, and reduce drought damage

Recommended crop varieties suitable for Borno

Crop	Extra-early maturing varieties	Early maturing varieties	Drought Tolerant varieties
Millet	LCIC-MV 2, LCIC-MV 4	SAMMAIL-6, SAMMAIL 7, SOSAC-C-88, SUPERSOSAT	SUPERSOSAT, SOSAT-C-88
Sorghum	SAMSORG 5	SAMSOEG 10, SAMSORG 11, SAMSORG 45, SAMSORG 46	SAMSORG 40, SAMSORG 41
Maize	SAMMAZ 28, SAMMAZ 29 SAMMAZ 32, SAMMAZ 33	SAMMAZ 9, SAMMAZ 27	SAMMAZ 27, SAMMAZ 28, SAMMAZ 29, SAMMAZ 42
Rice		FARO 44, FARO 55, FARO 56, FARO 58, FARO 59, FARO 61	
Cowpea	SAMDPEA 8	SAMPEA 10, SAMPEA 16, SAMPEA 17	SAMPEA 17
Groundnut	SAMNUT 23, SAMNUT 24	SAMNUT 25, SAMNUT 26	SAMNUT 14, SAMNUT 17, SAMNUT 18
Soybean	TGX 1485-1D, TGX 1988 -5F	TGX 1835-10E, TGX 1987-10F	TGX 1485-1D
Sesame		EX-SUDAN, KENENA 4	GOZA-25

Recommended crop varieties suitable for Adamawa

Crop	Early maturing varieties	Drought Tolerant varieties
Millet	SAMMAIL-6, SAMMAIL 7, SOSAC-C-88, SUPERSOSAT	SUPERSOSAT, SOSAT-C-88
Sorghum	SAMSOEG 10, SAMSORG 11, SAMSORG 45, SAMSORG 46	SAMSORG 40, SAMSORG 41
Maize	SAMMAZ 9, SAMMAZ 27	SAMMAZ 27, SAMMAZ 28, SAMMAZ 29, SAMMAZ 42
Rice	FARO 44, FARO 55, FARO 56, FARO 58, FARO 59, FARO 61	
Cowpea	SAMPEA 10, SAMPEA 16, SAMPEA 17	SAMPEA 17
Groundnut	SAMNUT 25, SAMNUT 26	SAMNUT 14, SAMNUT 17, SAMNUT 18
Soybean	TGX 1835-10E, TGX 1987-10F	TGX 1485-1D
Sesame	EX-SUDAN, KENENA 4	GOZA-25

Flood-Related Measures on Crop Activities

What farmers can do before a flood disaster occurs

- Flood happens when a region receives more than average rainfall above crop water requirement and soil carrying capacity.
- Select farm sites located in midland or upland area and avoid lowland areas.
- Source and procure seeds of extra-early or early maturing or flood-tolerant crop varieties ahead of the planting season;
- Rice, Millet, & Sorghum are more flood tolerant than maize, while maize is more tolerant than groundnut or cowpea.
- Source and procure FARO 66 and FARO 67 flood-tolerant rice varieties before the onset of the season.
- Plant crop seeds early in the season to allow for early growth and resist flood damage.
- Construct water channels to drain excess water away from the main farm when waterlogged
- Direct the water channels into a reservoir constructed at the lowest part of the farm to conserve water for dry-season farming

What farmers can do after a drought disaster has occurred

- Source early maturing vegetables, rice, or/and groundnut seeds for dry season irrigation farming before the end of the rainy season.
- Select farm sites along river flood plains or inland depressions for dry-season farming
- Dig wash boreholes or tube wells and procure water pumps and accessories.
- Or use the water conserved during the rainy season to irrigate the dry season crop.
- Plant the crop seeds just before the end of the rainy season.
- Apply grass mulch or polythene sheets and remove weeds to conserve soil moisture.
- Collect leftover crop residue and fodder from the rainy season, shade dry, and preserve for livestock supplementary feeding.
- Open graze livestock and provide supplementary feeding using the preserved crop residue and fodder.
- Store grains harvested from the rainy season crops in hematic bags e.g., Purdue Improved Crop Storage (PICS) bags or plastic/metallic drums to prevent losses.

Flood-related anticipatory actions on livestock activities

Proposed activities before the flood

- Site selection for livestock evacuation
- Temporary shelter construction on the selected sites
- Supplementary animal feed procurement and storage well ahead of the flood
- Supplementary feed provision at the temporary livestock shelter during the flood time
- Procurement and storage of veterinary drugs and vaccines well ahead of the flood
- Provision of veterinary services (treatment and vaccination) during the flood

Proposed Activities Post Flood

- Supplementary feed provision until pasture regenerate in the affected areas
- Support forage development in the areas using the season opportunity (simple sawing of pasture seeds)
- Ecto-parasitic treatment immediately after the flood to minimize the impact of ticks and flies around
- Continue the vaccination activities to prevent livestock from new diseases brought by the flood

Drought-related Anticipatory Action on Livestock Activities

- Provision of supplementary animal feed
- Provision of animal health services (treatment and vaccination)
- Facilitate livestock destocking (commercial or slaughter destocking)
- Provision of water for livestock in extreme situations
- Water point rehabilitation
- Forage development (irrigation access areas)
- Provision of unconditional cash

THANK YOU

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