



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****17th June, 2016****Senapati**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Senapati (18th to 22nd June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 28 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 58 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South South-Westerly to Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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“Gramin Krishi Mausam Seva”



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|---|----------------------------|--|--|
| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
| Cucumber | Transplanting | | ➤ Transplanting to be followed after rain. |
| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
| Pig | All age groups except the young ones | Care and management Mites infestation Enteric disease | ➤ Mineral mixture be added in feed @10-20g/adult animal ➤ Spray with Skin Heal Spray in sufficient quantity. ➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | ➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
| | | Fish | ➤ Feed should be provided @ 3-5 % body weight per day ➤ Feed can be fed at 2 times a day. |



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| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
|--|------------------------|-------|---|

(I. Meghachandra Singh)
Scientist i/c, IAAS



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**MANIPUR BULLETIN****17th June, 2016****Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Tamenglong

(18th to 22nd June, 2016) Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 28 °C & minimum temp. 19.0 to 20.0 °C. Relative humidity may reach upto 99 % (max RH) & 64 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
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| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
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| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
| | | Fish | ➤ Feed should be provided @ 3-5 % body weight per day ➤ Feed can be fed at 2 times a day. |



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| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
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The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Thoubal (18th to 22nd June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 28 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 70 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South West Westerly North West Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
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Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
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**MANIPUR BULLETIN****17th June, 2016****Ukhrul**

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Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Ukhrul

(18th to 22nd June, 2016) Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 28 to 29 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 68 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Southerly to South Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---|----------------------------|--|--|
| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
| Cucumber | Transplanting | | ➤ Transplanting to be followed after rain. |
| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
| Pig | All age groups except the young ones | Care and management Mites infestation Enteric disease | ➤ Mineral mixture be added in feed @10-20g/adult animal ➤ Spray with Skin Heal Spray in sufficient quantity. ➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | ➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
| | | Fish | ➤ Feed should be provided @ 3-5 % body weight per day ➤ Feed can be fed at 2 times a day. |



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| | | | |
|--|------------------------|-------|---|
| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
|--|------------------------|-------|---|

(I. Meghachandra Singh)
Scientist i/c, IAAS



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**MANIPUR BULLETIN****17th June, 2016****Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Bishnupur (18th to 22nd June, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 29 °C & minimum temp. 23.0 to 24.0 °C. Relative humidity may reach upto 100 % (max RH) & 70 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Westerly to Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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“Gramin Krishi Mausam Seva”



| | | | |
|---|----------------------------|--|--|
| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
| Cucumber | Transplanting | | ➤ Transplanting to be followed after rain. |
| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
| Pig | All age groups except the young ones | Care and management Mites infestation Enteric disease | ➤ Mineral mixture be added in feed @10-20g/adult animal ➤ Spray with Skin Heal Spray in sufficient quantity. ➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | ➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
| | | Fish | ➤ Feed should be provided @ 3-5 % body weight per day ➤ Feed can be fed at 2 times a day. |



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“Gramin Krishi Mausam Seva”



| | | | |
|--|------------------------|-------|---|
| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
|--|------------------------|-------|---|

(I. Meghachandra Singh)
Scientist i/c, IAAS



ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****17th June, 2016****Chandel**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Chandel (18th to 22nd June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 29 °C & minimum temp. 23.0 to 24.0 °C. Relative humidity may reach upto 99 % (max RH) & 75 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be South South-Westerly to South West Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---|----------------------------|--|--|
| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
| Cucumber | Transplanting | | ➤ Transplanting to be followed after rain. |
| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
| Pig | All age groups except the young ones | Care and management Mites infestation Enteric disease | ➤ Mineral mixture be added in feed @ 10-20g/adult animal ➤ Spray with Skin Heal Spray in sufficient quantity. ➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | ➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
| | | Fish | ➤ Feed should be provided @ 3-5 % body weight per day ➤ Feed can be fed at 2 times a day. |



ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”



| | | | |
|--|------------------------|-------|---|
| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
|--|------------------------|-------|---|

(I. Meghachandra Singh)
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ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****17th June, 2016****Churachandpur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Churachandpur (18th to 22nd June, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 28 to 30 °C & minimum temp. 23.0 to 24.0 °C. Relative humidity may reach upto 100 % (max RH) & 76 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Southerly to South South-Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---|----------------------------|--|--|
| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
| Cucumber | Transplanting | | ➤ Transplanting to be followed after rain. |
| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
| Pig | All age groups except the young ones | Care and management Mites infestation Enteric disease | ➤ Mineral mixture be added in feed @10-20g/adult animal ➤ Spray with Skin Heal Spray in sufficient quantity. ➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | ➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
| | | Fish | ➤ Feed should be provided @ 3-5 % body weight per day ➤ Feed can be fed at 2 times a day. |



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| | | | |
|--|------------------------|-------|---|
| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
|--|------------------------|-------|---|

(I. Meghachandra Singh)
Scientist i/c, IAAS



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**MANIPUR BULLETIN****17th June, 2016****Imphal East**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 13th June, 2016)

The sky remained variable to overcast. Rainfall of 8.3 mm was recorded during past three days. Maximum temperature range observed was 30.1 to 31.1 °C, range of minimum temperature observed was 22.0 to 22.4 °C, mean relative humidity observed in morning and afternoon were 90.67 % and 75.3 % respectively. The average wind speed range was 3.3 to 4.3 km/hr.

Weather forecast for next five days of Imphal East

(18th to 22nd June, 2016) Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 28 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 60 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Westerly to North West Westerly during the next five days.

Weather outlook for subsequence 2 days from 23rd to 25th June, 2016

Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
| | Nursery to land preparation of main field | | <ul style="list-style-type: none"> ➤ Puddle fields for rice nurseries ➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3rd week of July (for late transplanting). |
| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
| Blackgram | Sowing to seedling | | <ul style="list-style-type: none"> ➤ Seed rate of 10-15 kg/ hectare may be sown by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha. ➤ Drain out the field |
| Ginger/ Turmeric | Vegetative | | <ul style="list-style-type: none"> ➤ Weeding and interculture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months. ➤ Avoid water logging in and around the crop field. |
| Soybean | Sowing | | <ul style="list-style-type: none"> ➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm. ➤ If not sown early, sowing must be done before 1st fortnight of July ➤ Hand weeding should be done before 30-35 days, after sowing. |
| Storage(Seed) | | | <ul style="list-style-type: none"> ➤ Store the seeds in RC seed bins after proper cleaning and drying of seeds. Check for moisture content/ weight of the seeds, dry the charcoal. Store the bulk grains in well ventilated go-downs and check for leakage of rain water. |
| Horticulture Crops | | | |
| Cucurbits (Water-melon, pumpkin, bitter gourd, etc.) | Vegetative/harvest | | <ul style="list-style-type: none"> ➤ Four leaf stage, young plants may be transplanted after rain ➤ Avoid water stagnation in the root zone, harvest the mature ones. |
| Chilli | Seed Collection | | <ul style="list-style-type: none"> ➤ Seed collection should be done preferably on bright sunshine hours. |
| Cow pea | Harvesting | | <ul style="list-style-type: none"> ➤ As keeping quality is poor green ones should be harvested at the earliest. |



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| | | | |
|---|----------------------------|--|--|
| Banana (Grand naine) | Transplanting | | ➤ For upland areas this is the right time for transplanting of banana. |
| Turmeric | Intercrop | | ➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop. |
| Cucumber | Transplanting | | ➤ Transplanting to be followed after rain. |
| Water mimosa (Neptunia Oleracea) | Planting and First harvest | | ➤ Maintain water at a depth of 2.5-3 ft. ➤ Use new slips having atleast 4-5 nodes for planting ➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles. ➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval. ➤ Seed rate: 840 steps/sangam |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|--|---------------------------------------|---|---|
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management ■ Coccidiosis | ➤ Provide only clean/wholesome drinking water only ➤ Do not give mud water as there is chance of colibacillosis during the rainy season ➤ Use water sanitizer in drinking water/potassium permanganate (few grains) ■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated. |
| Sheep/ Goat | All age groups excepts the young ones | Care & management Deworming | ➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem ➤ Give multivitamins @15ml orally ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. |
| Pig | All age groups except the young ones | Care and management Mites infestation Enteric disease | ➤ Mineral mixture be added in feed @10-20g/adult animal ➤ Spray with Skin Heal Spray in sufficient quantity. ➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | ➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Endoparasites | ➤ Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight. |
| | | Care & management | ➤ Mix enough quantity salts in feed and water ➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given. ➤ Food supplements may be given @20-30 gm/animals. ➤ Prepare fields for transplantation of fodders, grasses, especially in the available foot hills/fallow lands. ➤ Care should be taken to protect yoke gall/bursitis. |

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------------|----------------|--|
| Carp culture | Fish nurseries | Pond and water | ➤ Water depth should be maintain at 1.0-1.5m ➤ Agri-lime should be applied in ponds ➤ Ponds should be free from aquatic weed, predatory insects and fish |
| | | Feed | ➤ Fish feed should be provided @ 10-15 % body weight per day. |
| | | Fish | ➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond ➤ Duration is 25-45 days. |
| | Grow out | Pond and water | ➤ Water depth should be maintain at 1.5-2.0m ➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval |
| | | Feed | ➤ Sampling of fish for growth, disease (if any) should be done by regular netting. ➤ Partial harvesting of marketable size fishes are also recommended |
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| | | | |
|--|------------------------|-------|---|
| | Paddy cum fish culture | water | <ul style="list-style-type: none">➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field. |
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Weather forecast for next five days of Imphal West

(18th to 22nd June, 2016) Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 28 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 60 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South West Westerly to Westerly during the next five days.

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Fairly wide spread rain/thunderstorms activity very likely with isolated heavy fall over northeastern states

Weather warning during the next 5 days*

Heavy to very heavy rain with extremely heavy falls likely at isolated places over Manipur on 18th June, 2016

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---|---|------------------|--|
| Field Crops | | | |
| Early kharif rice | Grain filling-Maturity | | <ul style="list-style-type: none"> ➤ Maintain water level at 5-8 cm. Drain/pump out excess water from the crop field due to rain ➤ Check for any insect-pest in the crop. |
| Main kharif rice | Land preparation for sowing | | <ul style="list-style-type: none"> ➤ Prepare 700m² of land for transplanting one hectare area. Soak seed overnight and incubate for 1 day. ➤ Plough the main field and sow seeds in beds with thin slurry film ➤ Apply 65 Kg Urea, 250 Kg SSP and 45 Kg MOP per hectare at the time of final leveling. |
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| Groundnut | Seedling stage | | <ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out. ➤ Maintain proper drainage system to avoid water logging. |
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Animal Sciences

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Fishery:

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|---------------------|----------------|----------------|--|
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