



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

**MANIPUR BULLETIN****10th 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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016)

The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.

Weather forecast for next five days of Tamenglong (11th to 15th June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 30 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 66 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be South-south Westerly to South Westerly during the next five days.

Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also proping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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**MANIPUR BULLETIN****10th June, 2016****Thoubal**

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 11th to 15th June, 2016 as below:

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Weather forecast for next five days of Thoubal (11th to 15th June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 25 to 31 °C & minimum temp. 21.0 to 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 79 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be Southerly to North-west Westerly during the next five days.

Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also proping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

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**MANIPUR BULLETIN****10th June, 2016****Ukhrul**

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Weather forecast for next five days of Ukhrul (11th to 15th June, 2016)

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Rain/thunderstorm activity very likely at many places over northeastern states

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
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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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
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ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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

**MANIPUR BULLETIN****10th 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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016)

The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.

Weather forecast for next five days of Bishnupur (11th to 15th June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 30 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 78 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be Southerly to Westerly during the next five days.

Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also propping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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



Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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



Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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

**MANIPUR BULLETIN****10th 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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016) The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.	Weather forecast for next five days of Chandel (11th to 15th June, 2016) Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 30 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 83 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to South Westerly during the next five days.
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Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also proping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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“Gramin Krishi Mausam Seva”



Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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 per magnate(few grains) ➤ Livcin oval liquid-@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Dewormig Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****10th 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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016) The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.	Weather forecast for next five days of Churachandpur (11th to 15th June, 2016) Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 30 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 77 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South-south Easterly to South-south Westerly during the next five days.
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Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also proping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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



Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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

**MANIPUR BULLETIN****10th 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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016)

The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.

Weather forecast for next five days of Imphal East (11th to 15th June, 2016)

Likely to have light to moderate rain upto Wednesday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 31 °C & minimum temp. 18.0 to 19.0 °C. Relative humidity may reach upto 100 % (max RH) & 68 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be South Westerly to North-west Westerly during the next five days.

Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also proping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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



Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
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	➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wt. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	➤ Animals affected with PICA (depraved appetite) should be dewormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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



Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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

**MANIPUR BULLETIN****10th June, 2016****Imphal West**

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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016)

The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.

Weather forecast for next five days of Imphal West (11th to 15th 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. 20.0 to 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 67 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Westerly to Westerly during the next five days.

Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also proping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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



Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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



Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

(I. Meghachandra Singh)

Scientist i/c, IAAS



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

**MANIPUR BULLETIN****10th 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 11th to 15th June, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 9th June, 2016) The sky remained variable to overcast. Rainfall of 18.9 mm was recorded during past three days. Maximum temperature range observed was 31.5 to 31.7 °C, range of minimum temperature observed was 21.5 to 22.3 °C, mean relative humidity observed in morning and afternoon were 93 % and 86.7 % respectively. The average wind speed range was 3.7 to 4.2 km/hr.	Weather forecast for next five days of Senapati (11th to 15th 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. 21.0 to 22.0 °C. Relative humidity may reach upto 99 % (max RH) & 66 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be South-south Westerly to Westerly during the next five days.
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Weather outlook for subsequence 2 days from 16th to 18th June, 2016
Rain/thunderstorm activity very likely at many places over northeastern states

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 optimum water level ➤ Check for any insect-pest in the crop ➤ Repair bunds to check from re-flooding
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.
Groundnut	Seedling stage		<ul style="list-style-type: none"> ➤ Thin out plants at spacing of 30 cm x 15 cm and weed out.
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
Rabi Maize	Cob Maturity		<ul style="list-style-type: none"> ➤ Harvest the mature cobs and heap in dry sheds. ➤ For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
French beans	Seedling Stage	Catter pillars	<ul style="list-style-type: none"> ➤ Spray Thiram or Captan @3Kg/ha
Ginger/ Turmeric	Initial Growth	Rot	<ul style="list-style-type: none"> ➤ Drain out the field and apply Ridomyl MZ @2g/l of water.
Kharif 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 ➤ Sowing may be done at seed spacing of 30x15 sq cm.
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			
Banana (Grand naine)	Transplanting	■	<ul style="list-style-type: none"> ➤ As Grand naine is gaining popular in Manipur, it is recommended to keep atleast 2 months period in the hardening chamber or in the naturally ventilated polyhouse before transplanting. ➤ Pit size 3' X 3' X 3' is required at any cost. ➤ It may also be introduced in the newly constructed ring bund with sufficient quantity of FYM ➤ Low lying areas are strictly avoided ➤ As it is very fast growing fruit, sufficient quantity of NPK, 150-200g N, 50 g P, 250g K₂O/plant/year is suggested. Also propping will be required as it is a heavy fruiting crop (25-30 kg/plant) ➤ In the certain stage of the crop intercrops like brinjal, colocassia, turmeric, cowpeas may also be grown.



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



Turmeric	Intercrop		➤ Turmeric/ginger may also be intercrop with other vegetables like French bean in the early stage of crop.
Cucumber	Transplanting		➤ Nursery for cucumber should be prepared so as to transplant in the field (as soon as the field condition permits) to meet the demand of tarpan (Sept.-Oct.)
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Harvest	■ Fruit flies	<ul style="list-style-type: none"> ■ Crops may be protected from fruit flies. ➤ Avoid the fruits to touch soil by staking or with the support of dried twigs. ➤ In mid-hill areas, remove soil beneath the fruit from time to time.
Papaya, tree bean, mango	Transplanting		<ul style="list-style-type: none"> ➤ As most of the saturated plant with pheromone traps, transplant papaya plant/tree bean/ mango and other fruit plants in the upland areas provided already quality planting material is available <ul style="list-style-type: none"> 1. For papaya: at least 2-3 months old seedling 2. Tree bean: more than 1 year old 3. Mango: more than 1 year old seedling/ grafted
Cow pea	Land preparation - Sowing		<ul style="list-style-type: none"> ➤ Land preparation may be done (Raised bed are preferred for sowing). ➤ Sowing may be done for prepared land at seed spacing of 45-60 cm from seed to seed and row to row
Other vegetable crops	Weeding		➤ As soon as the field condition permits, weeding should be done for the standing crops which is not affected by flood
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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) ➤ Livcin oval liquid@7.5 mg/kg
Sheep/ Goat	All age groups excepts the young ones	Care & management Deworming Skin Problem	<ul style="list-style-type: none"> ➤ If the sheep have not yet been sheared, shearing of fur must be done this month/days. ➤ Give multivitamins @15ml/animal for 7 days. ➤ Deworming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl. ➤ Use Teeburb @ 1Capsule twice a day till required.
Pig	All age groups except the young ones	Care and management Mites infestation Enteric disease	<ul style="list-style-type: none"> ➤ Animals should be injected with vitamin A @2ml in deep intramuscular injection at least for 5 days. ➤ 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	<ul style="list-style-type: none"> ➤ Animals affected with PICA (depraved appetite) should be de wormed with Nilzan-F @ 90ml/ 300 kg body weight. ➤ 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.
	Milch cow	Mastitis	➤ To prevent mastitis they should be milked completely.



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Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	<ul style="list-style-type: none">➤ Flooded Pond water should be maintained clean.➤ Apply lime/zeolite@20-30 Kg/ha at 20-25 days interval.
		For quality fish seed production	<ul style="list-style-type: none">➤ Only matured and ripe brooders should be selected for breeding.➤ Single dose hormone injection of Ovaprim/ Ovatide/ Wova-Fh @0.5 ml/kg body weight for female brooders and @0.2 ml/kg body weight for female brooder.
		Feed	Provide feed 1-2 times @ 3 % body weight per day.
		Fish	<ul style="list-style-type: none">➤ Male and female brooders should be stock in separate ponds for breeding programs for IMC's & indigenous Carps.

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