

### ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### 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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.9-33.2\,^{\circ}\text{C}$ , range of minimum temperature observed was  $22.0-24.4\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was  $0.1-1.4\,\text{km/hr}$ .

Weather forecast for next five days of Churachandpur (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 31.0 – 32.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 87 % (minimum RH). The average wind speed may be 0-2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1	•	
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	<u> </u>	•	
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery	Plutella Diamond	- For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.  - Land preparation for transplanting seedlings may be started.  - There may be incidence of Plutella Diamond Black Moth in nursery. If
		Black Moth	- There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli		Nursery raising		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2
(in foot-hills/	/ solaric	of off-season		kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50
tunnel)		broccoli		W.P. before sowing.
Turmeric		Rhizome	Leaf spot	Prophylactic spray of of Redomil MZ 72 WP @ 2g/lit water alternately
		formation in		with Carbendazim @ 2g/lit water at 14 days interval may be sprayed
		turmeric		against Taphrina leaf spot disease.
			Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot
	_			disease.
Animal Science		<u> </u>		
Name of the an	nimai	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry		All susceptible age	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine
		groups (as and wher required)		tincture or Betadine liquid daily on pox growth.
		required)	Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	t	Above 3 months of	Endoparasite/	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight
		age (as and when required)	Ectoparasite	accompanied with Livozyme @ 50ml daily.
			H.S.	- Vaccinate against H.S. @ ½ ml sub- cutaneously.
Pig		Above 3 months of age (as and when	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30
				ml per adult animal once.
Cattle / Buffa Mithun	alo/	Above 3 months of age (as and when	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		required)	Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
			Deworming (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.
Fishery:				
Type of Farming	Stage	Management	Agro-metrological advisor	ies
Carp	Breedi	ng Pond and	Water must be clean, f	ree from unwanted vegetation and insects & depth of 1.0-1.5m should be
culture	Divou.	water	maintained.	non university regermant and insects of depth of the file in should be
		Fish		rooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc.
ļ		(Hormone		onds and in artificial breeding pools. Either Ovitide or Wova-FH or
		dose)		pody weight can be injected to induce for spawning.
ļ	Nurse			clean and depth should be maintained at 1.0-1.5m.
		Feed	-	led 2-3 times a day @ 5-10 % body weight per day.
		Fish		an be stock in 1 ha pond.
	Grow	- Pond and		nterval of 30 days should be done with a slurry of RCD @1500kg/ha.
	out	water		of water is desirable if any change in colour, odour of water half of the
		F: 1		out and change with fresh water.
		Fish	8000-10,000 fingerling	
		Food		rowth, diseases (if any) should be done by regular netting.
		Feed	per day. Feed can be fe	tified with vitamins and minerals should be provided @ 3-5% body weight ed at 2-3 times a day
Cat fish	Breedi	ng		uality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as
(Ngakra)	Diccui	****		ova-FH or Ovaprim @ 0.7- 0.8ml/kg body weight can be injected for
(··· <del>g</del> /				fingerlings can be stocked in ha
	Water			maintained at 0.5m -0.8m for nurseries. Ponds should be manured with
				initial and 500-800 kg/ha at 15 days interval.
	Feed			in content 35-40% CP should be given @ 5-8% body weight.
	Feed			



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#### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### 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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.9-33.2\,^{\circ}\text{C}$ , range of minimum temperature observed was  $22.0-24.4\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was  $0.1-1.4\,\text{km/hr}$ .

Weather forecast for next five days of Imphal-East (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $30.0-32.0\,^{\circ}\text{C}$  & minimum temp. 23.0  $-24.0\,^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100 % (maximum RH) & 84 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1	•	
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	1	•	
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery	Plutella Diamond	- For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.  - Land preparation for transplanting seedlings may be started.  - There may be incidence of Plutella Diamond Black Moth in nursery. If
		Black Moth	- There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli		Nursery raising		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2
(in foot-hills	/ solaric	of off-season		kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50
tunnel)		broccoli		W.P. before sowing.
Turmeric		Rhizome	Leaf spot	Prophylactic spray of of Redomil MZ 72 WP @ 2g/lit water alternately
		formation in		with Carbendazim @ 2g/lit water at 14 days interval may be sprayed
		turmeric		against Taphrina leaf spot disease.
			Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot
4 . 10 .	•			disease.
Animal Sci		Growth stage	Disease/ infestation	Agro-meteorological advisories
rame of the ar	milai			
Poultry		All susceptible age	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine
		groups (as and when required)		tincture or Betadine liquid daily on pox growth.
		required)	Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	t	Above 3 months of	Endoparasite/	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight
		age (as and when required)	Ectoparasite	accompanied with Livozyme @ 50ml daily.
			H.S.	- Vaccinate against H.S. @ ½ ml sub- cutaneously.
Pig		Above 3 months of age (as and when	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30
				ml per adult animal once.
Cattle / Buffa Mithun	alo/	Above 3 months of age (as and when	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		required)	Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
			Deworming (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.
Fishery:				
Type of Farming	Stage	Management	Agro-metrological advisor	ies
Carp	Breedi	ng Pond and	Water must be clean, f	ree from unwanted vegetation and insects & depth of 1.0-1.5m should be
culture		water	maintained.	
		Fish	Good quality of carp b	rooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc.
		(Hormone		onds and in artificial breeding pools. Either Ovitide or Wova-FH or
		dose)		pody weight can be injected to induce for spawning.
	Nurse			clean and depth should be maintained at 1.0-1.5m.
		Feed	-	led 2-3 times a day @ 5-10 % body weight per day.
		Fish		an be stock in 1 ha pond.
	Grow			nterval of 30 days should be done with a slurry of RCD @1500kg/ha.
	out	water		of water is desirable if any change in colour, odour of water half of the
		Fish	8000-10,000 fingerling	out and change with fresh water.
		1 1511		rowth, diseases (if any) should be done by regular netting.
		Feed		tified with vitamins and minerals should be provided @ 3-5% body weight
			per day. Feed can be fe	· · · · · · · · · · · · · · · · · · ·
Cat fish	Breedi	ng		uality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as
(Ngakra)				ova-FH or Ovaprim @ 0.7- 0.8ml/kg body weight can be injected for
- '			breeding. 8000-10000	fingerlings can be stocked in ha
	Water			maintained at 0.5m -0.8m for nurseries. Ponds should be manured with
				initial and 500-800 kg/ha at 15 days interval.
	Feed		- Feed with high protei	in content 35-40% CP should be given @ 5-8% body weight.



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#### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### 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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9-33.2 °C, range of minimum temperature observed was 22.0-24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1-1.4 km/hr.

Weather forecast for next five days of Imphal-West (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $29.0-31.0\,^{\circ}\text{C}$  & minimum temp.  $22.0-24.0\,^{\circ}\text{C}$ . Relative humidity may reach a maximum of  $100\,^{\circ}$  (maximum RH) & 79 % (minimum RH). The average wind speed may be  $2\,\text{km/hr}$  during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1	•	
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	1	•	
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery	Plutella Diamond	- For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.  - Land preparation for transplanting seedlings may be started.  - There may be incidence of Plutella Diamond Black Moth in nursery. If
		Black Moth	- There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli		Nursery raising		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2
(in foot-hills	/ solaric	of off-season		kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50
tunnel)		broccoli		W.P. before sowing.
Turmeric		Rhizome	Leaf spot	Prophylactic spray of of Redomil MZ 72 WP @ 2g/lit water alternately
		formation in		with Carbendazim @ 2g/lit water at 14 days interval may be sprayed
		turmeric		against Taphrina leaf spot disease.
			Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot
4 . 10 .	•			disease.
Animal Sci		Growth stage	Disease/ infestation	Agro-meteorological advisories
rame of the ar	milai			
Poultry		All susceptible age	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine
		groups (as and when required)		tincture or Betadine liquid daily on pox growth.
		required)	Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	t	Above 3 months of	Endoparasite/	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight
		age (as and when required)	Ectoparasite	accompanied with Livozyme @ 50ml daily.
			H.S.	- Vaccinate against H.S. @ ½ ml sub- cutaneously.
Pig		Above 3 months of age (as and when	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30
				ml per adult animal once.
Cattle / Buffa Mithun	alo/	Above 3 months of age (as and when	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		required)	Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
			Deworming (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.
Fishery:				
Type of Farming	Stage	Management	Agro-metrological advisor	ies
Carp	Breedi	ng Pond and	Water must be clean, f	ree from unwanted vegetation and insects & depth of 1.0-1.5m should be
culture		water	maintained.	
		Fish	Good quality of carp b	rooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc.
		(Hormone		onds and in artificial breeding pools. Either Ovitide or Wova-FH or
		dose)		pody weight can be injected to induce for spawning.
	Nurse			clean and depth should be maintained at 1.0-1.5m.
		Feed	-	led 2-3 times a day @ 5-10 % body weight per day.
		Fish		an be stock in 1 ha pond.
	Grow			nterval of 30 days should be done with a slurry of RCD @1500kg/ha.
	out	water		of water is desirable if any change in colour, odour of water half of the
		Fish	8000-10,000 fingerling	out and change with fresh water.
		1 1511		rowth, diseases (if any) should be done by regular netting.
		Feed		tified with vitamins and minerals should be provided @ 3-5% body weight
			per day. Feed can be fe	· · · · · · · · · · · · · · · · · · ·
Cat fish	Breedi	ng		uality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as
(Ngakra)				ova-FH or Ovaprim @ 0.7- 0.8ml/kg body weight can be injected for
- '			breeding. 8000-10000	fingerlings can be stocked in ha
	Water			maintained at 0.5m -0.8m for nurseries. Ponds should be manured with
				initial and 500-800 kg/ha at 15 days interval.
	Feed		- Feed with high protei	in content 35-40% CP should be given @ 5-8% body weight.



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### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### 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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

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Weather forecast for next five days of Senapati (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $28.0-30.0\,^{\circ}\text{C}$  & minimum temp.  $20.0-22.0\,^{\circ}\text{C}$ . Relative humidity may reach a maximum of 99 % (maximum RH) & 82 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		•	
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery		<ul> <li>For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m<sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.</li> <li>Land preparation for transplanting seedlings may be started.</li> </ul>
		Plutella Diamond Black Moth	- There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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	Nursery raising		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2
solaric	of off-season		kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50
	broccoli		W.P. before sowing.
	Rhizome	Leaf spot	Prophylactic spray of of Redomil MZ 72 WP @ 2g/lit water alternately
	formation in		with Carbendazim @ 2g/lit water at 14 days interval may be sprayed
	turmeric		against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot
			disease.
	<u> </u>		
mai	Growth stage	Disease/ infestation	Agro-meteorological advisories
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine
		3.6	tincture or Betadine liquid daily on pox growth.
'	required)	Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
		Endoparasite/	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight
	_		accompanied with Livozyme @ 50ml daily.
			- Vaccinate against H.S. @ ½ ml sub- cutaneously.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
1	required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30
			ml per adult animal once.
:	age (as and when	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
1	required)	Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.
Stage	Management	Agro-metrological advisori	ies
Breedir	ng Pond and	Water must be clean, fi	ree from unwanted vegetation and insects & depth of 1.0-1.5m should be
Breedn	0		too from unwanted vegetation and insects to depth of 1.0 from should be
			rooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc.
	(Hormone		onds and in artificial breeding pools. Either Ovitide or Wova-FH or
	dose)		oody weight can be injected to induce for spawning.
Nurseri			clean and depth should be maintained at 1.0-1.5m.
		-	led 2-3 times a day @ 5-10 % body weight per day.
			an be stock in 1 ha pond.
Grow -			aterval of 30 days should be done with a slurry of RCD @1500kg/ha.
out	water		f water is desirable if any change in colour, odour of water half of the
	Tr. 1.		out and change with fresh water.
	Fish		
	Feed		owth, diseases (if any) should be done by regular netting.  tified with vitamins and minerals should be provided @ 3-5% body weight
			· · · · · · · · · · · · · · · · · · ·
Breedin			pality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as
			ova-FH or Ovaprim @ 0.7- 0.8ml/kg body weight can be injected for
			fingerlings can be stocked in ha
Water			maintained at 0.5m -0.8m for nurseries. Ponds should be manured with
vv attr			
		RCD @ 5000kg/ha at i	nitial and 500-800 kg/ha at 15 days interval.  n content 35-40% CP should be given @ 5-8% body weight.
	nces mal  oo/  Stage  Breedin  Nurseriout  Breedin	Rhizome formation in turmeric    Management	Rhizome formation in turmeric  Rhizome formation in turmeric  Rhizome rot  Fowl pox  Management  Fowl pox  Fowl pown and water  Fowl pown and water must be clean, fow an



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#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### **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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.9-33.2\,^{\circ}\text{C}$ , range of minimum temperature observed was  $22.0-24.4\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was  $0.1-1.4\,\text{km/hr}$ .

Weather forecast for next five days of Tamenglong (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $31.0-33.0\,^{\circ}\text{C}$  & minimum temp.  $23.0-25.0\,^{\circ}\text{C}$ . Relative humidity may reach a maximum of  $100\,^{\circ}$  (maximum RH) & 79 % (minimum RH). The average wind speed may be  $2\,\text{km/hr}$  during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	T.		
Citrus			- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery	Plutella Diamond	<ul> <li>For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m²of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.</li> <li>Land preparation for transplanting seedlings may be started.</li> <li>There may be incidence of Plutella Diamond Black Moth in nursery. If</li> </ul>
		Black Moth	the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli		Nursery raising		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2
(in foot-hills	/ solaric	of off-season		kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50
tunnel)		broccoli		W.P. before sowing.
Turmeric		Rhizome	Leaf spot	Prophylactic spray of of Redomil MZ 72 WP @ 2g/lit water alternately
		formation in		with Carbendazim @ 2g/lit water at 14 days interval may be sprayed
		turmeric		against Taphrina leaf spot disease.
			Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot
	_			disease.
Animal Sci		G d t	D: / . c	1
Name of the ar	nimai	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry		All susceptible age	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine
		groups (as and when required)		tincture or Betadine liquid daily on pox growth.
		required)	Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	t	Above 3 months of	Endoparasite/	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight
		age (as and when required)	Ectoparasite	accompanied with Livozyme @ 50ml daily.
			H.S.	- Vaccinate against H.S. @ ½ ml sub- cutaneously.
Pig		Above 3 months of age (as and when	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30
				ml per adult animal once.
Cattle / Buffa Mithun	alo/	Above 3 months of age (as and when	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		required)	Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
			Deworming (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.
Fishery:				
Type of Farming	Stage	Management	Agro-metrological advisor	ies
Carp	Breed	ng Pond and	Water must be clean, f	ree from unwanted vegetation and insects & depth of 1.0-1.5m should be
culture	Breed	water	maintained.	received anywhited regentation and insects to depth of 110 110 in should be
		Fish		rooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc.
		(Hormone		onds and in artificial breeding pools. Either Ovitide or Wova-FH or
		dose)		pody weight can be injected to induce for spawning.
	Nurse	ries Ponds	Ponds water should be	clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provide	led 2-3 times a day @ 5-10 % body weight per day.
		Fish		an be stock in 1 ha pond.
	Grow	- Pond and		nterval of 30 days should be done with a slurry of RCD @1500kg/ha.
	out	water		of water is desirable if any change in colour, odour of water half of the
				out and change with fresh water.
		Fish	8000-10,000 fingerling	
		Es. 4		rowth, diseases (if any) should be done by regular netting.
		Feed	per day. Feed can be fe	tified with vitamins and minerals should be provided @ 3-5% body weight
Cat fish	Breed	no I		uality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as
(Ngakra)	Bicca	6		ova-FH or Ovaprim @ 0.7- 0.8ml/kg body weight can be injected for
(* 180mm)				fingerlings can be stocked in ha
	Water			maintained at 0.5m -0.8m for nurseries. Ponds should be manured with
				initial and 500-800 kg/ha at 15 days interval.
	Feed			in content 35-40% CP should be given @ 5-8% body weight.
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#### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### **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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9-33.2 °C, range of minimum temperature observed was 22.0-24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1-1.4 km/hr.

Weather forecast for next five days of Thoubal (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $31.0-33.0\,^{\circ}\text{C}$  & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 88 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1	•	
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	П		
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery	Plutella Diamond	- For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.  - Land preparation for transplanting seedlings may be started.  - There may be incidence of Plutella Diamond Black Moth in nursery. If
		Black Moth	the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



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### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### **Ukhrul**

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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.9-33.2\,^{\circ}\text{C}$ , range of minimum temperature observed was  $22.0-24.4\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was  $0.1-1.4\,\text{km/hr}$ .

Weather forecast for next five days of Ukhrul (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 28.0 – 30.0 °C & minimum temp. 19.0 – 21.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 87 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		•	
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	•	•	
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery	Plutella Diamond	- For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.  - Land preparation for transplanting seedlings may be started.  - There may be incidence of Plutella Diamond Black Moth in nursery. If
		Black Moth	the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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temporary rain shelter, apply 1-2		
ll with Carbendazim or Captan 50		
2 WP @ 2g/lit water alternately		
days interval may be sprayed		
f water to prevent rhizome rot		
advisavias		
advisories		
nfected paint with Iodine		
rowth.		
eed for one week. Keep litter vated) @ 3-4 kg per 100sq. ft.		
vice a week.		
per 20 kg body weight		
ly.		
aneously.		
d use the solution twice a week		
using Piperazine citrate @ 30		
th animal using the solution at		
@ 5-10 g/kg b.wt.		
depth of 1.0-1.5m should be		
are an order		
ıtla, Kuri, Pengba, Khabak, etc.		
Ovitide or Wova-FH or		
awning.		
0-1.5m.		
per day.		
20-30 million spawn can be stock in 1 ha pond.		
rry of RCD @1500kg/ha.		
Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.		
egular netting.		
provided @ 3-5% body weight		
provided & 3-3% body weight		
per day. Feed can be fed at 2-3 times a day.  Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as		
veight can be injected for		
breeding. 8000-10000 fingerlings can be stocked in ha  Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with		
RCD @ 5000kg/ha at initial and 500-800 kg/ha at 15 days interval.		
8% body weight.		



### ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### 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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.9-33.2\,^{\circ}\text{C}$ , range of minimum temperature observed was  $22.0-24.4\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was  $0.1-1.4\,\text{km/hr}$ .

Weather forecast for next five days of Bishnupur (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $30.0-33.0\,^{\circ}\text{C}$  & minimum temp. 23.0  $-24.0\,^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100 % (maximum RH) & 85 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	-		
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	1	•	
Citrus			<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> </ul>
Early Cauliflower	Nursery		<ul> <li>For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m<sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.</li> <li>Land preparation for transplanting seedlings may be started.</li> </ul>
		Plutella Diamond Black Moth	- There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



Broccoli		Nursery raising		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2	
(in foot-hills/	solaric	of off-season		kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Carbendazim or Captan 50	
tunnel)		broccoli		W.P. before sowing.	
Turmeric		Rhizome	Leaf spot	Prophylactic spray of of Redomil MZ 72 WP @ 2g/lit water alternately	
		formation in		with Carbendazim @ 2g/lit water at 14 days interval may be sprayed	
		turmeric		against Taphrina leaf spot disease.	
			Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot	
				disease.	
Animal Sci		Cuarreth stage	Diagonal infectation	A que meteonological edviganica	
Name of the an	IIIIai	Growth stage	Disease/ infestation	Agro-meteorological advisories	
Poultry		All susceptible age	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine	
		groups (as and when required)		tincture or Betadine liquid daily on pox growth.	
		required)	Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goat			Endoparasite/	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight	
		age (as and when required)	Ectoparasite	accompanied with Livozyme @ 50ml daily.	
		- '	H.S.	- Vaccinate against H.S. @ ½ ml sub- cutaneously.	
Pig	Above 3 months of age (as and when		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30	
				ml per adult animal once.	
Cattle / Buffa Mithun	ılo/	Above 3 months of age (as and when	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.	
re		required)	Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.	
			Deworming (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.	
Fishery:					
Type of Farming	Stage	Management	Agro-metrological advisor	ies	
Carp	Breedi	ng Pond and	Water must be clean, f	ree from unwanted vegetation and insects & depth of 1.0-1.5m should be	
culture		water	maintained.		
		Fish	Good quality of carp b	rooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc.	
		(Hormone		onds and in artificial breeding pools. Either Ovitide or Wova-FH or	
		dose)		pody weight can be injected to induce for spawning.	
	Nursei			clean and depth should be maintained at 1.0-1.5m.	
		Feed	Feeds should be provided 2-3 times a day @ 5-10 % body weight per day.		
		Fish		an be stock in 1 ha pond.	
	Grow			nterval of 30 days should be done with a slurry of RCD @1500kg/ha.	
	out	water		of water is desirable if any change in colour, odour of water half of the	
		Fish	8000-10,000 fingerling	out and change with fresh water.	
		1.1211		rowth, diseases (if any) should be done by regular netting.	
		Feed		tified with vitamins and minerals should be provided @ 3-5% body weight	
		1000	per day. Feed can be fe	· · · · · · · · · · · · · · · · · · ·	
Cat fish	Breedi	ng	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as		
(Ngakra)				ova-FH or Ovaprim @ 0.7- 0.8ml/kg body weight can be injected for	
= '			breeding. 8000-10000	fingerlings can be stocked in ha	
	Water		Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with		
			RCD @ 5000kg/ha at initial and 500-800 kg/ha at 15 days interval.		
	Feed		- Feed with high protei	in content 35-40% CP should be given @ 5-8% body weight.	



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### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 22<sup>nd</sup> July, 2014

#### 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 23<sup>rd</sup> to 27<sup>th</sup> July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 21<sup>st</sup> July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of  $20^{\text{th}}$  July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9-33.2 °C, range of minimum temperature observed was 22.0-24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1-1.4 km/hr.

Weather forecast for next five days of Chandel (23<sup>rd</sup> to 27<sup>th</sup> July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 32.0 – 34.0 °C & minimum temp. 23.0 – 24.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 92 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	•		
Rice	Transplanting of Main Kharif		<ul> <li>Complete transplanting before 31<sup>st</sup> July.</li> <li>During final leveling apply fertilizer @ 60-80 kg N, 40 kg P<sub>2</sub>O<sub>2</sub> and 30 kg K<sub>2</sub>O/ ha with half of N, full of P<sub>2</sub>O<sub>2</sub> and 2/3 of K<sub>2</sub>O as basal dose before transplanting seedlings.</li> <li>Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope.</li> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm.</li> <li>Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.</li> </ul>
	Post- harvesting of <i>pre-kharif</i>		- Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sundried for 5-7 days.
Maize	Kharif Maize: Cob formation		- Weeding may be done.
Soybean / Groundnut	Vegetative		<ul> <li>- Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	1		
Citrus			- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery	Plutella Diamond	<ul> <li>For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m²of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc.</li> <li>Land preparation for transplanting seedlings may be started.</li> <li>There may be incidence of Plutella Diamond Black Moth in nursery. If</li> </ul>
		Black Moth	the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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