

## Soil Health Card (SHC) for Sericulture Farmers Eastern & North Eastern States of India

States	SHC distributed to farmers (#)	SHC digitization in GoI portal (#)
West Bengal	15,243	15,243
Orissa	101	101
Jharkhand	48	48
Assam	395	395
Meghalaya	261	58
Tripura	1134	1,134
Manipur	1237	1,055
Mizoram	300	42
<b>Total</b>	<b>18,719</b>	<b>18,076</b>
<b>Achiev. %</b>	<b>104 %</b>	<b>100 %</b>

• 12 soil parameters of soil (pH, EC, Organic carbon, available - N, P, K, S, Zn, Fe, Cu, Mn and B)  
• "Mridapariksha" : a quantitative soil test minilab kit (Nagarjuna Agrochemicals Pvt. Ltd., Hyderabad)

## Corrective Measures for Mulberry Soil Health Maintenance Eastern & North Eastern States of India

Soil reaction (pH)	
Classification	pH
Strongly acidic	< 4.5
Moderately acidic	4.5 – 5.5
Slightly acidic	5.6 – 6.5
Neutral	6.6 – 7.5
Slightly alkaline	7.6 – 8.5
Alkaline	>8.5
REMEDY	
• Lime for acidic soil	
• Gypsum for alkali soil	

Organic Carbon (OC)	
Classification	OC (%)
Low	< 4.5
Medium	4.5 – 5.5
High	5.6 – 6.5
REMEDY	
20 or 10 t FYM/ha/yr for irrigated or rainfed farm	

Available Nitrogen (N)			
Status	Available N (kg/ha)	Remedy (kg N/ha/yr)	
		Irrigated	Rainfed
Low	< 280	420	188
Medium	280 – 560	336	150
High	> 560	252	113

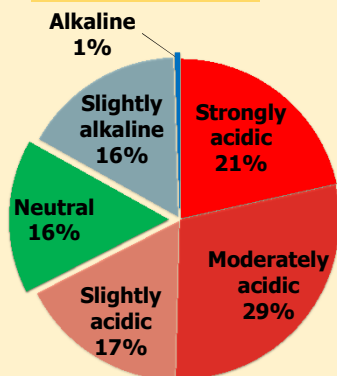
Available Phosphorous (P)			
Status	Available P (kg/ha)	Remedy (kg P <sub>2</sub> O <sub>5</sub> /ha/yr)	
		Irrigated	Rainfed
Low	< 23	225	63
Medium	23 – 57	180	50
High	> 57	135	38

Available Potassium (K)			
Status	Available K (kg/ha)	Remedy (kg K <sub>2</sub> O/ha/yr)	
		Irrigated	Rainfed
Low	< 145	140	63
Medium	145 – 337	112	50
High	> 337	84	38

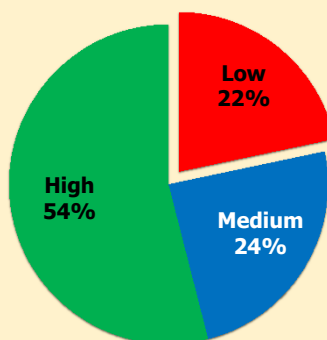
Micronutrients Deficiency	
Micronutrients (mg/kg)	Remedy
S (< 10)	50 kg S/ha/yr
Fe (< 4.5)	0.10% Fe as sulfate sol.
Mn (< 2)	0.10% Mn as sulfate sol.
Zn (< 0.6)	0.22% Zn as sulfate sol.
B (< 0.5)	0.10% Boric acid sol.
Cu (< 0.2)	0.11% Cu as sulfate sol.

# West Bengal : Mulberry Soil Health Status

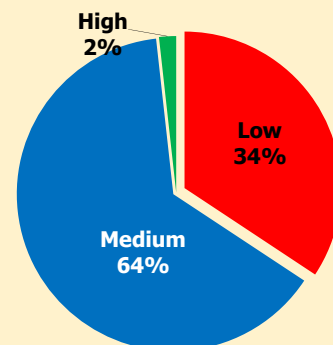
**Soil reaction (pH)**



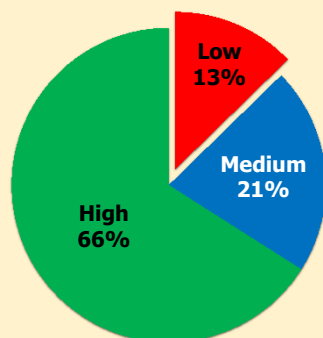
**Organic Carbon (OC)**



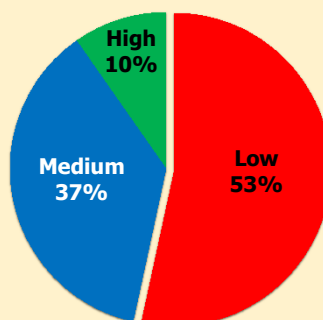
**Available Nitrogen (N)**



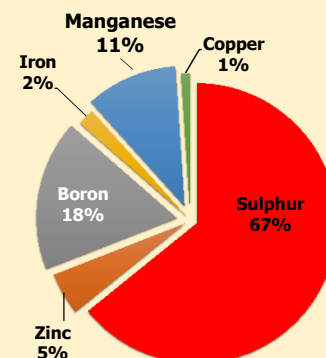
**Available Phosphorous (P)**



**Available Potassium (K)**



**Sulphur (S) & Micronutrient Deficiency**

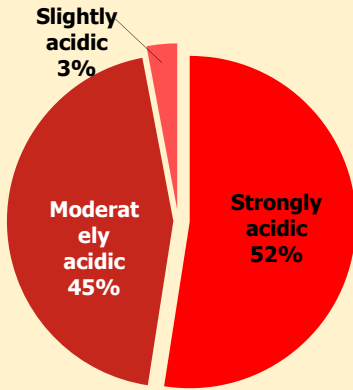


## West Bengal : Nutrient Status of Mulberry Growing Soils

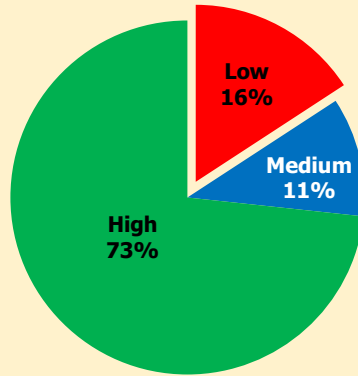
Places		pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
District	Block				N	P	K	
Birbhum (509)	Nalhati-I (409)	Acidic	Not Saline	High	Medium	High	Medium	S > B > Zn > Mn > Cu
	Nalhati-II (75)	Acidic		High	Medium	High	Low	S > Zn = Mn > B = Cu
	Rampurhat-I & II (25)	Acidic – Neutral		High	Medium	High	Medium	S > Zn > Mn > B
Kalimpong (81)	Kalimpong-I (32)	Acidic		High	Medium	High	Medium	S > Mn
	Kalimpong-II (49)	Acidic		High	Medium	High	Medium	S > Mn
Malda (250)	Kaliachak-I (131)	Alkaline – Neutral		Medium	Low	Medium	Low	S > Mn > B > Fe > Cu > Zn
	Kaliachak-II (110)	Alkaline – Neutral		Medium	Low	Medium	Low	S > Mn > B > Fe > Zn > Cu
	Manikchak (9)	Neutral		Medium	Medium	Medium	Low	S = B
Murshidabad (263)	Domkal (6)	Alkaline		Medium	Medium	Medium	High	S = Mn > B
	Khargram (120)	Acidic		Medium	Low	High	Medium	S > B > Zn > Mn
	Nabagram (137)	Acidic – Neutral	Medium	Medium	High	Low	S > B > Zn > Mn > Fe	
Nadia (91)	Karimpur-I (30)	Acidic & Alkaline	High	Medium	Medium	Low	S > B > Mn > Zn > Fe	
	Karimpur-II (61)	Alkaline – Neutral	Medium	Low	Medium	Low	S > B > Mn > Zn > Fe	
<b>West Bengal (1194)</b>		<b>Acidic</b>	<b>Not Saline</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>	<b>Low</b>	<b>S &gt; B &gt; Mn &gt; Zn &gt; Fe &gt; Cu</b>

# Orissa : Mulberry Soil Health Status

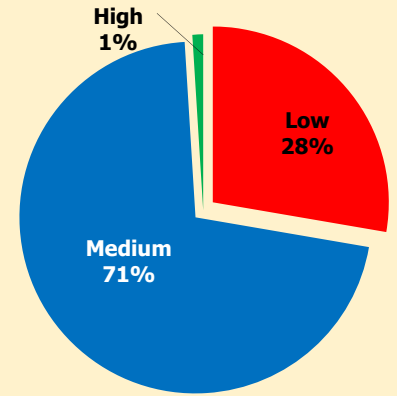
Soil reaction (pH)



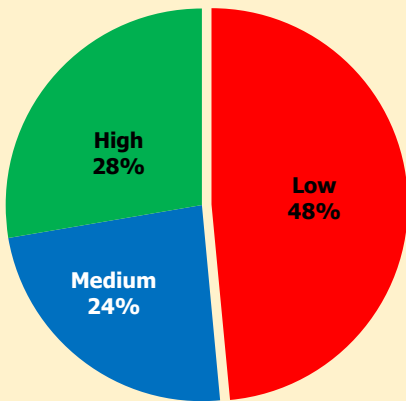
Organic Carbon (OC)



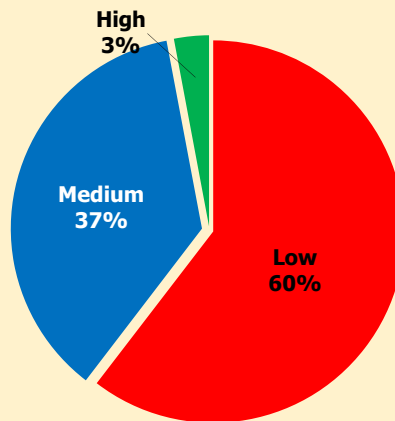
Available Nitrogen (N)



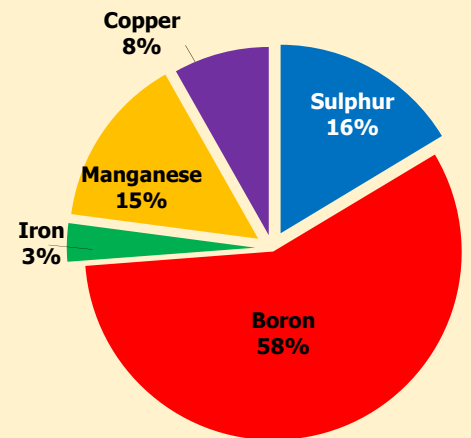
Available Phosphorous (P)



Available Potassium (K)



Sulphur (S) & Micronutrient Deficiency

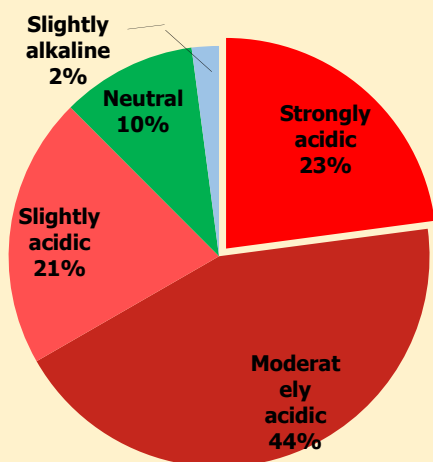


Orissa : Nutrient Status of Mulberry Growing Soils

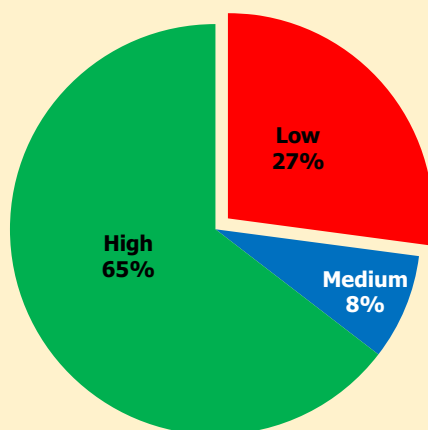
Places District	pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
				N	P	K	
Rayagada(78)	Acidic	Not	High	Medium	Medium	Low	B > Mn > Fe > Cu
Koraput (23)	Acidic	Saline	High	Medium	Low	Low	B > Fe
<b>Orissa (101)</b>	<b>Acidic</b>	<b>Not Saline</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>Low</b>	<b>B &gt; Mn &gt; Cu &gt; Fe</b>

# Jharkhand : Mulberry Soil Health Status

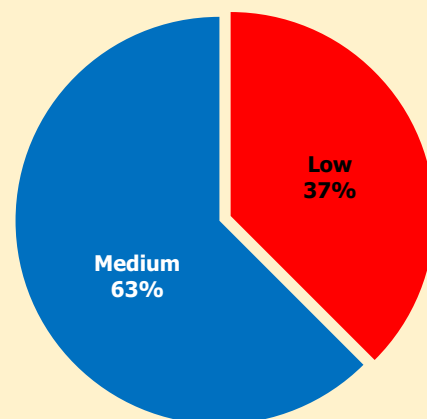
**Soil reaction (pH)**



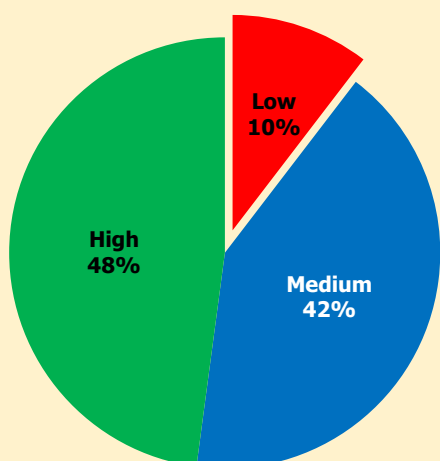
**Organic Carbon (OC)**



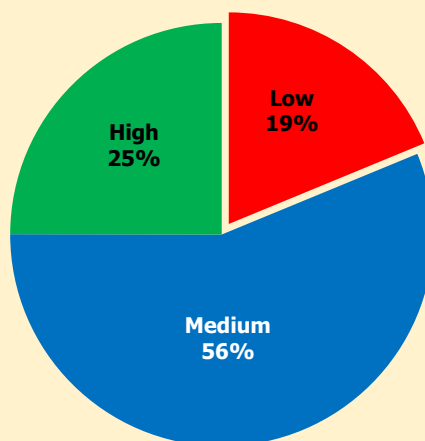
**Available Nitrogen (N)**



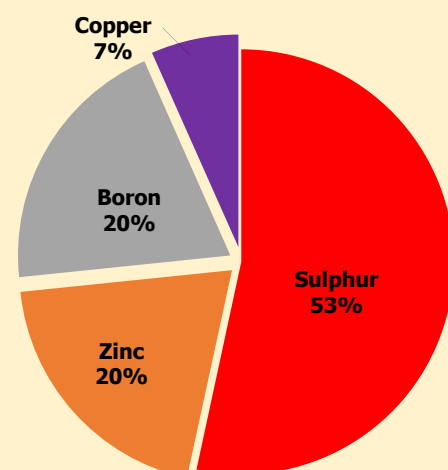
**Available Phosphorous (P)**



**Available Potassium (K)**



**Sulphur (S) & Micronutrient Deficiency**

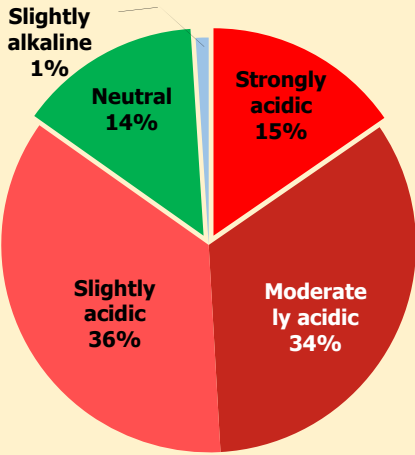


## Jharkhand : Nutrient Status of Mulberry Growing Soils

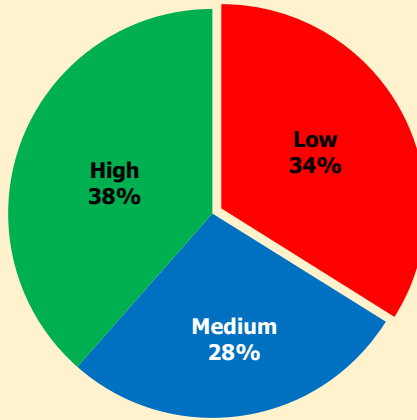
Places District	pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
				N	P	K	
Ranchi (3)	Acidic	Not Saline	Medium	Low	High	Low	<b>B = Cu</b>
Lohardaga (11)	Alkaline – Neutral		High	Low	High	Medium	<b>B</b>
Latehar (23)	Acidic – Neutral		High	Low	High	Medium	<b>Zn = B</b>
Gumla (11)	Acidic		High	Low	High	Medium	<b>Zn</b>
<b>Jharkhand (48)</b>	<b>Acidic</b>	<b>Not Saline</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Medium</b>	<b>Zn = B &gt; Cu</b>

# Assam : Mulberry Soil Health Status

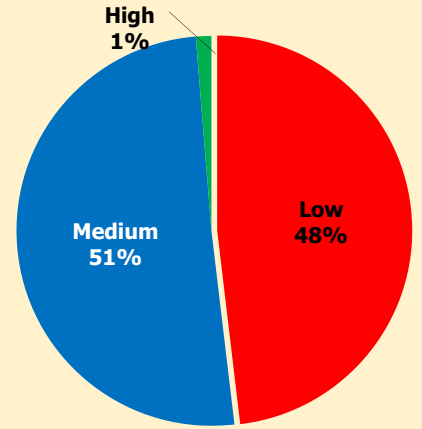
Soil reaction (pH)



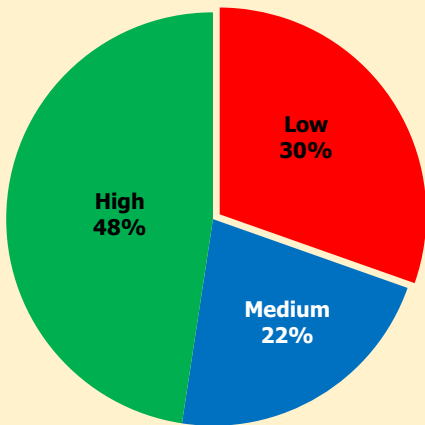
Organic Carbon (OC)



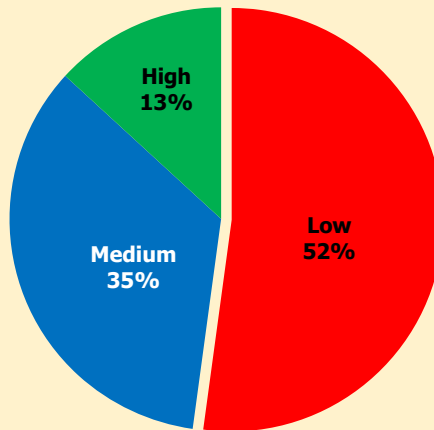
Available Nitrogen (N)



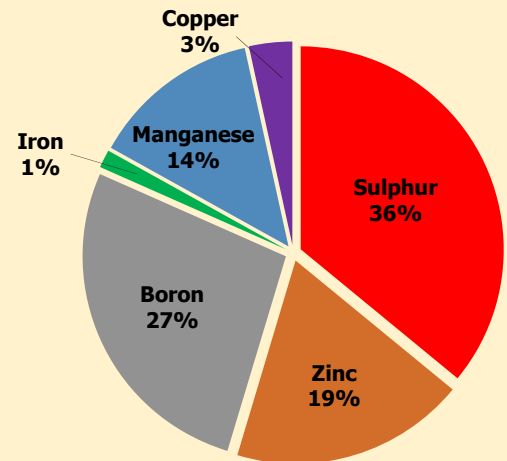
Available Phosphorous (P)



Available Potassium (K)



Sulphur (S) & Micronutrient Deficiency

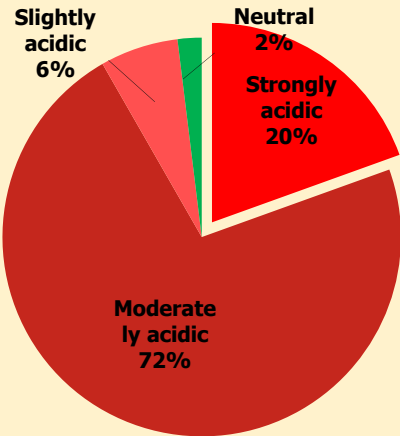


Assam : Nutrient Status of Mulberry Growing Soils

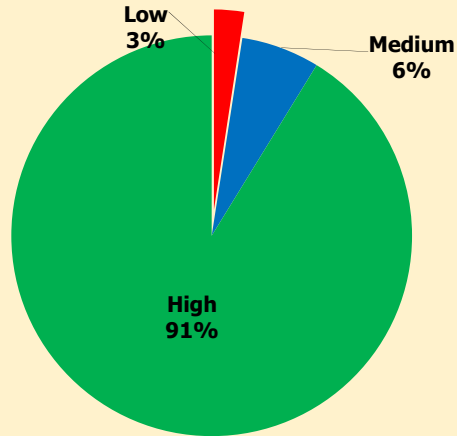
Places District	pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
				N	P	K	
Darrang (99)	Acidic	Not Saline	Medium	Low	Low	Low	B > Zn > Cu > Mn > Fe
Golaghat (52)	Acidic & Alkaline		Medium	Medium	Medium	High	B > Zn > Mn
Jorhat (230)	Acidic & Alkaline		Medium	Low	High	Low	Mn > B > Zn > Fe
Udalguri (14)	Acidic		Medium	Low	Low	Low	Zn > B
<b>Assam (395)</b>	<b>Acidic</b>	<b>Not Saline</b>	<b>Medium</b>	<b>Low</b>	<b>Medium</b>	<b>Low</b>	<b>B &gt; Zn &gt; Mn &gt; Cu &gt; Fe</b>

# Meghalaya : Mulberry Soil Health Status

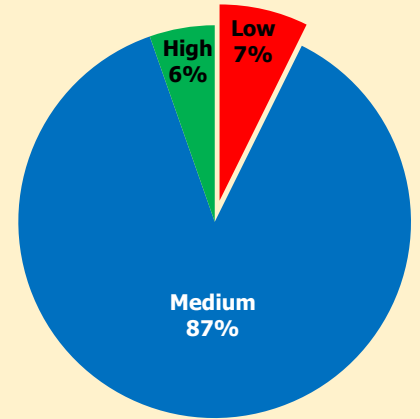
Soil reaction (pH)



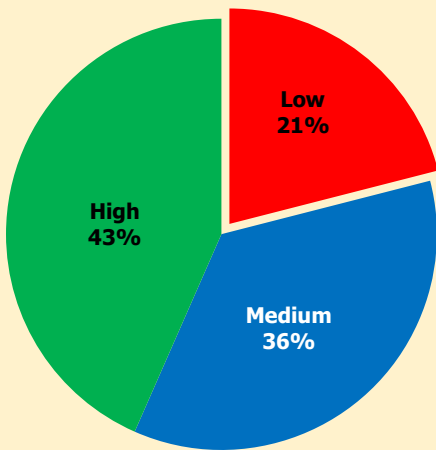
Organic Carbon (OC)



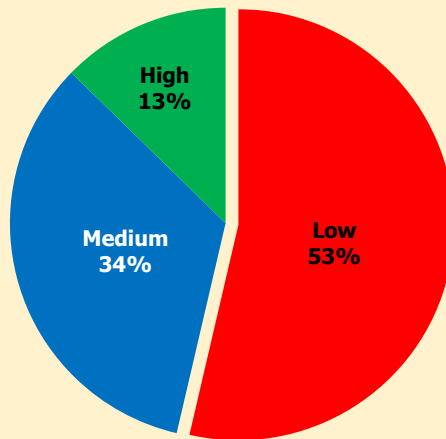
Available Nitrogen (N)



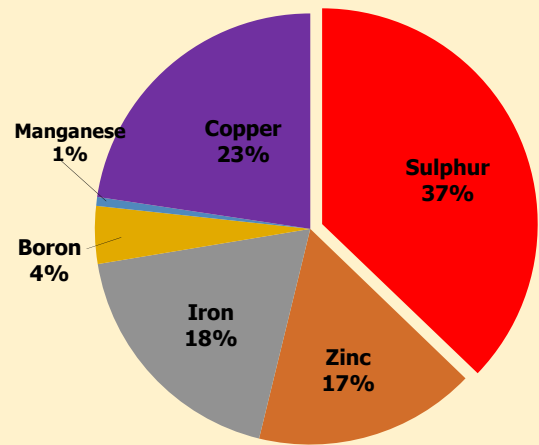
Available Phosphorous (P)



Available Potassium (K)



Sulphur (S) & Micronutrient Deficiency

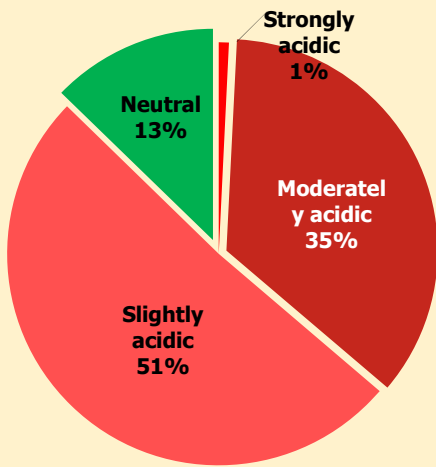


## Meghalaya : Nutrient Status of Mulberry Growing Soils

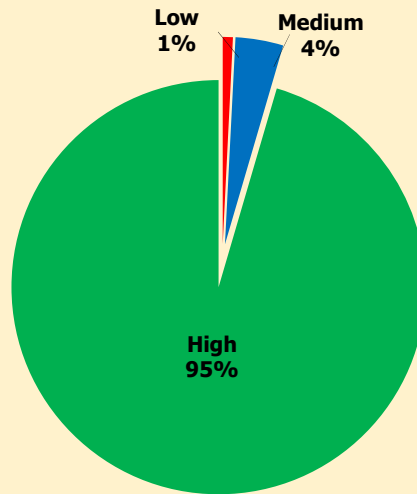
Places		pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
District	Block				N	P	K	
Lunglei (23)	Laskein (83)	Acidic- Neutral	Not Saline	High	Medium	Medium	Low	Cu > Zn > B > Fe
	Thadlaskein (122)	Acidic- Neutral	Saline	High	Medium	Medium	Low	B > Cu > Zn > Fe > Mn
Meghalaya (205)		Acidic	Not Saline	High	Medium	Medium	Low	Cu > B > Zn > Fe > Mn

# Manipur : Mulberry Soil Health Status

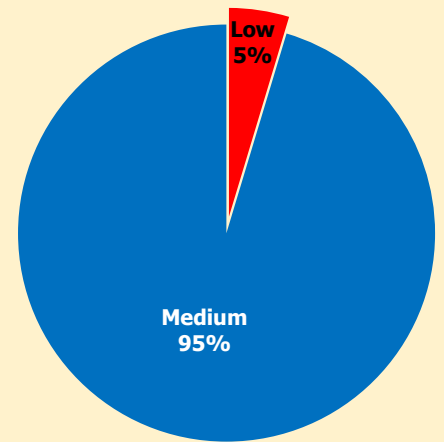
**Soil reaction (pH)**



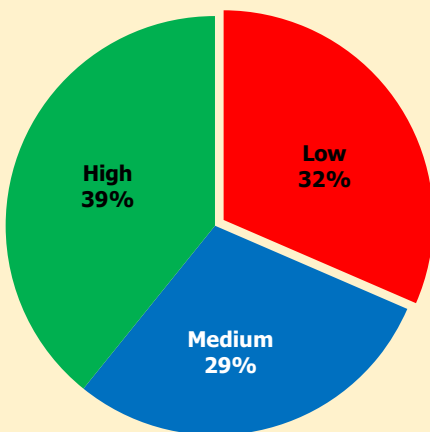
**Organic Carbon (OC)**



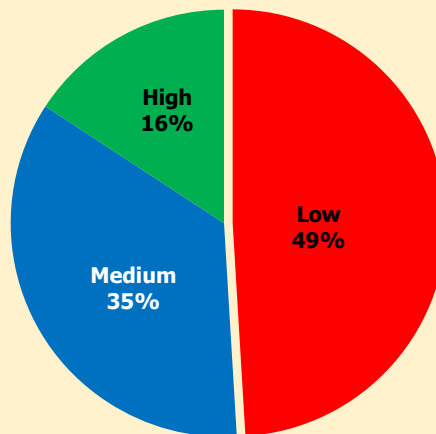
**Available Nitrogen (N)**



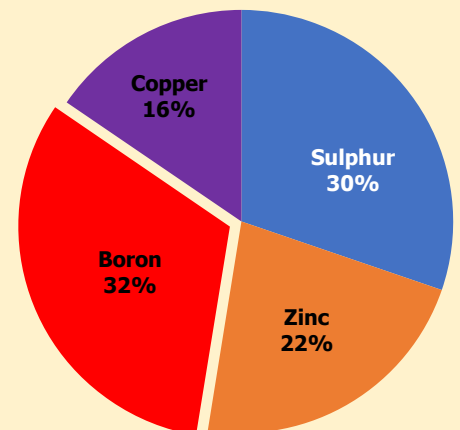
**Available Phosphorous (P)**



**Available Potassium (K)**



**Sulphur (S) & Micronutrient Deficiency**

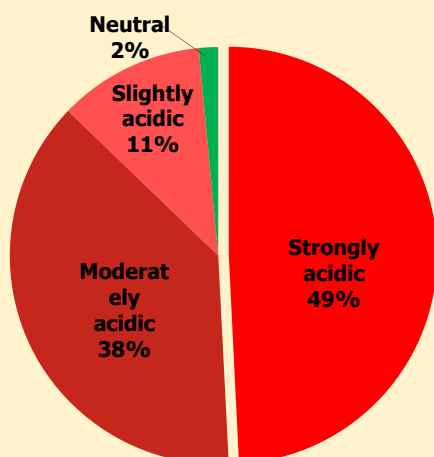


## Manipur : Nutrient Status of Mulberry Growing Soils

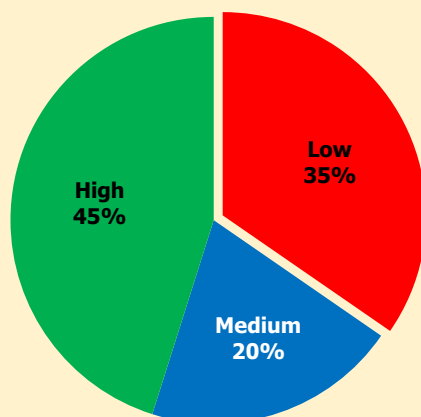
Places District	pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
				N	P	K	
Bishnupur (182)	Acidic – Neutral	Not Saline	High	Medium	Medium	Medium	<b>B &gt; Zn &gt; Cu</b>
Chandel (4)	Acidic		High	Medium	Low	Low	<b>Zn &gt; Cu</b>
Churachandpur (3)	Acidic		High	Medium	Medium	Medium	<b>Zn &gt; Cu</b>
Imphal East (280)	Acidic– Neutral		High	Medium	Medium	Low	<b>B &gt; Zn &gt; Cu</b>
Imphal West (108)	Acidic– Neutral		High	Medium	Medium	Low	<b>B &gt; Zn &gt; Cu</b>
Thoubal (244)	Acidic– Neutral		High	Medium	Medium	Medium	<b>B &gt; Zn &gt; Cu</b>
Ulhrul (61)	Acidic– Neutral		High	Medium	Medium	High	Medium
<b>Manipur (882)</b>	<b>Acidic</b>	<b>Not Saline</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>B &gt; Zn &gt; Cu</b>

## Tripura : Mulberry Soil Health Status

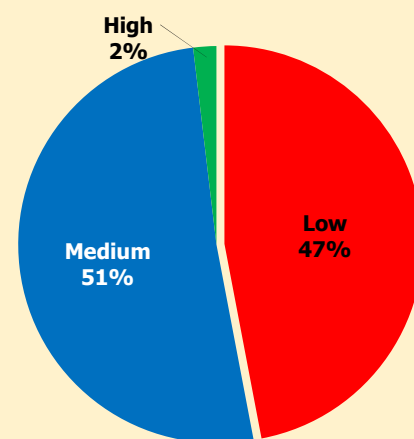
**Soil reaction (pH)**



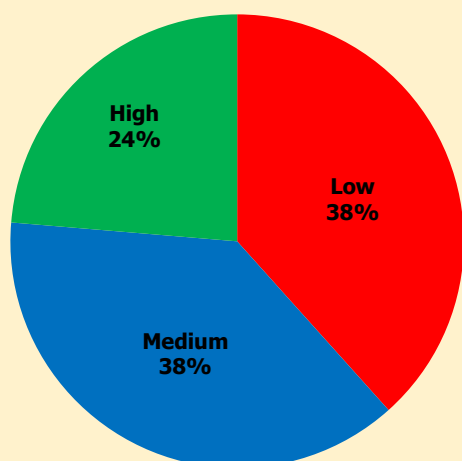
**Organic Carbon (OC)**



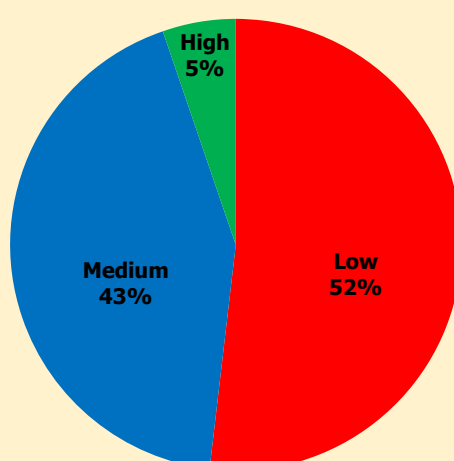
**Available Nitrogen (N)**



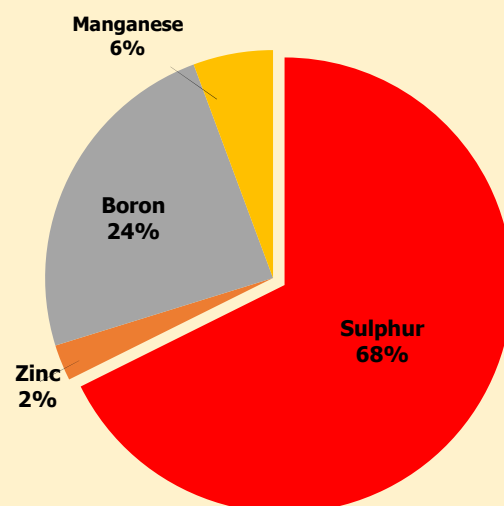
**Available Phosphorous (P)**



**Available Potassium (K)**



**Sulphur (S) & Micronutrient Deficiency**



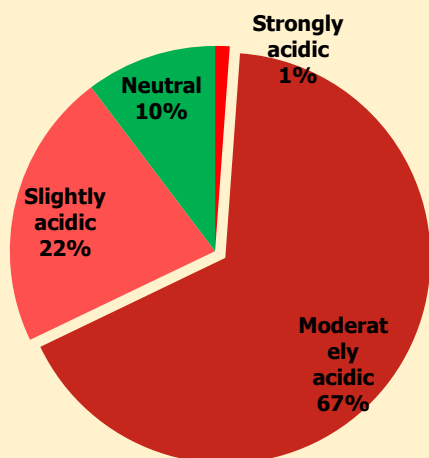
**Tripura : Nutrient Status of Mulberry Growing Soils**

Places District	pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
				N	P	K	
Dhalai (84)	Acidic	Not Saline	High	Medium	Medium	Medium	<b>B &gt; Zn &gt; Mn = Cu</b>
North Tripura (85)	Acidic		Medium	Low	Low	Low	<b>B &gt; Mn &gt; Zn</b>
Sepahijala (28)	Acidic – Neutral		Medium	Low	Medium	Low	<b>B</b>
South Tripura (47)	Acidic– Neutral		Medium	Low	Medium	Low	<b>B &gt; Mn</b>
West Tripura (22)	Acidic		Medium	Low	Medium	Low	<b>B &gt; Mn</b>
<b>Tripura (266)</b>	<b>Acidic</b>	<b>Not Saline</b>	<b>Medium</b>	<b>Low</b>	<b>Medium</b>	<b>Low</b>	<b>B &gt; Mn &gt; Zn &gt; Cu</b>

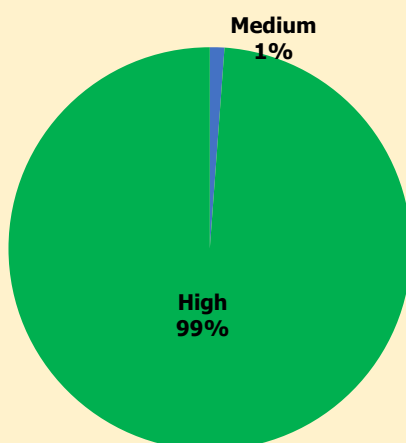


# Mizoram : Mulberry Soil Health Status

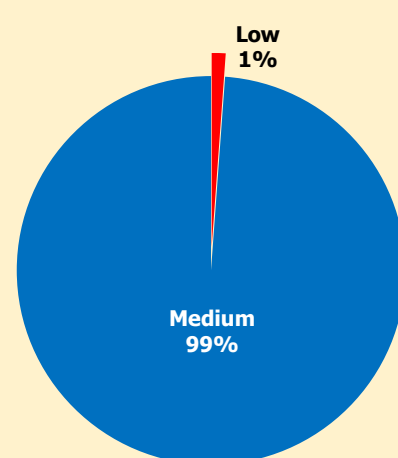
Soil reaction (pH)



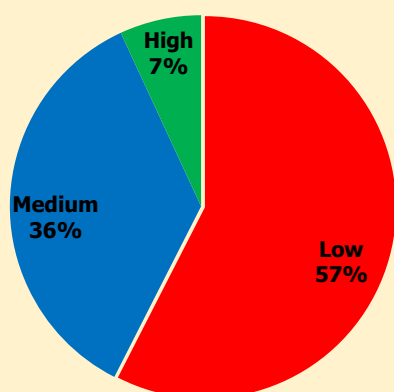
Organic Carbon (OC)



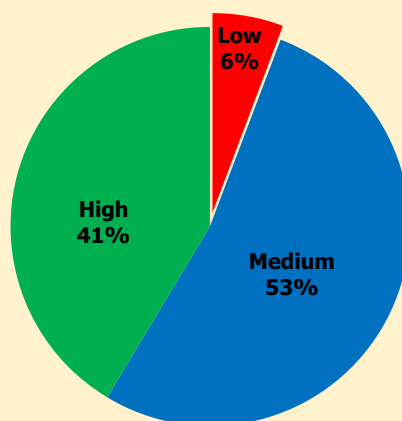
Available Nitrogen (N)



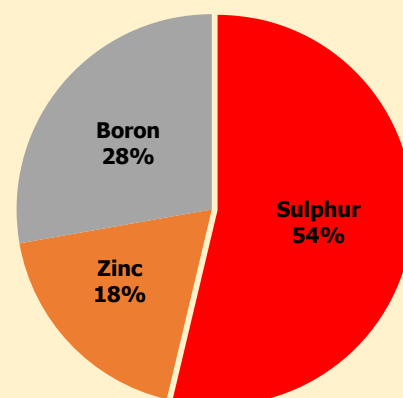
Available Phosphorous (P)



Available Potassium (K)



Sulphur (S) & Micronutrient Deficiency



## Mizoram : Nutrient Status of Mulberry Growing Soils

Places		pH	EC	OC	Available Macronutrients			Soil Micronutrients (Deficient Order)
District	Block				N	P	K	
Aizwal (12)	Aizwal (12)	Acidic	Not Saline	High	Medium	Low	Medium	B > Zn
Champhai (52)	Champhai (15)	Acidic		High	Medium	Low	High	Zn
	Khwabung (28)	Acidic- Neutral		High	Medium	Medium	High	Zn > B
	Ngopa (9)	Acidic		High	Medium	Low	Medium	Zn = B
Lunglei (23)	Hanahtial (14)	Acidic- Neutral		High	Medium	Low	Medium	B
	Lunglei (9)	Acidic- Neutral		High	Medium	Low	Medium	B
Mizoram (87)		Acidic	Not Saline	High	Medium	Low	High	B > Zn