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### Rearing system of *Niang megha* Breed of Pig in Meghalaya

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#### ABSTRACT

A study was conducted in two purposively selected districts of Meghalaya in order to investigate the rearing as well as veterinary health care practices adopted by the Niang Megha rearing farmers. It was revealed that majority of the respondents (55.84 %) practised semi-intensive system of rearing, while hiring of boars (44.71%) was the dominating breeding practice among them. Majority of them never gave their pigs conventional feed, on the contrary 55.84% sometimes provided indigenous ration and a large majority (84.17%) went for garbage feeding and only 33.33% did scavenging. In respect of veterinary health care practices, majority practised weaning (45.33%) and castration (59.17%). On the other hand a large majority of the respondents did not get their pigs vaccinated, while only 14.17% did it sometimes and 8.33% mostly. It was noteworthy that an equal number of respondents mostly provided treatment to their ailing animals and also mostly practised de-worming.

#### Introduction

Niang megha is an indigenous Breed of Pig found in Khasi, Jaintia and Garo Hills district of Meghalaya (Accession No. INDIA PIG-1300 Niang megha 03002) which has been registered by the NBAGR, Karnal as an indigenous Breed. This pig is famous for resistance to various diseases. The state of Meghalaya located in North-East part of India is rich in biodiversity. The flora and fauna prevalent in this region are of significant importance on many events. The preservation of the indigenous germplasm is of utmost importance. Therefore, Niang megha Breed of Pig reared by the tribal people since time immemorial has caught the attention of the Animal Husbandry Scientists. Due to its disease resistance, high productive efficiency and adjustable feeding habits. In this part of the country traditional management practices continue to dominate production system with majority of the households rearing pigs for their domestic consumption as well as a subsidiary activity

Therefore, an attempt was made to inquire about the

different practices adopted by the Pig farmers with the following objectives: -

1. To study the Rearing practices adopted by the *Niang megha* farmers.
2. To inquire the Veterinary Health Care practices adopted by the *Niang megha* farmers.

#### Research Methodology

The study was undertaken in two purposively selected districts of Meghalaya. Four Villages were randomly selected from each of the two selected districts. Fifteen Pig farmers were selected from each of the eight selected villages to make the sample size 120. A Focus Group Discussion was held with village Headman and few progressive farmers to get insight about rearing practices and other health care practices adopted by the Pig farmers. Based on this, an interview schedule was prepared, which was pre-tested upon 20 non-sample respondents. Data were personally collected and subjected to statistical analysis like frequency and percentage.

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## Results and Discussions

### 3.1 Rearing Practices Adopted by the Niang Megha Farmers

Table-1 revealed that in East Khasi Hills district, majority (66.67%) of the respondents reared their pigs under scavenging system followed by 28.33% under semi-intensive system and only 5.00% percent under intensive system. But the scavenging system was not found in West Khasi Hills districts where large majority (83.33%) adopted semi-intensive system and the rest (16.67%) followed intensive system. In the pooled sample, majority (55.84%) of the respondents reared their pigs under semi-intensive system followed by 33.33% under scavenging system and 10.83% under Intensive system. This might be due to the reason that the economic condition of the Pig farmers was not good and they could not afford to rear Pigs under Intensive System and mostly depend on zero input for Pig rearing. However, in West Khasi Hills district, the Government and Village authority imposed a strict ban on scavenging system of Pigs as it created nuisance in the village, destroyed crops and defecated everywhere making it difficult to maintain cleanliness in the village. Therefore, scavenging system was not found in this district. However, absence of such ban in East Khasi Hills district resulted in majority pig farmers taking to scavenging system. This finding was in line with those of Ajala (2006) who revealed that the system of swine management in the Kaduna state of Nigeria was largely semi-intensive. However, Jini (2009) reported that pigs were mainly raised on free range scavenging system, semi-intensive and intensive system. On the other hand Muhanguzi (2012) found that 49.6 % of the pigs were raised in the semi-intensive system while 31%, 12% and 8% of the farmers kept pigs on intensive, tethering and free range rearing systems. But Fulefac (2014) reported that all the farmers reared pigs in confinement system. The above-mentioned table also exhibited that in East Khasi Hills district, majority (66.67%) of the farmers bred their pigs through unidentified mating followed by only 20 percent with hired boar and 13.33 percent with their own boar. But in West

Khasi Hills, majority (68.33%) of the respondents bred by hired boar followed by 31.67 per cent who had their own farm boar. Unidentified mating was conspicuously absent in this district. In pooled data, majority (44.17%) of the respondents hired boar for mating their pigs, followed by 33.33 per cent with unidentified mating and 22.5 per cent with own farm boar. There is no Artificial Insemination practice in the study area. Therefore scavenging was widely prevalent in East Khasi Hills, whereas its ban in the other district prohibited farmers who mainly preferred to hire boar for mating. The present finding was similar to that of Njuki (2010) who reported that the practice of hiring boar was common in Nagaland where as high as 80 percent of the respondents hired boar for mating their sow. It was almost similar to the findings of Deka (2007).

### Feeding System of Niang Megha

Table-2 depicted that majority of the respondents (66.67%) in East Khasi Hills district never used conventional feed, whereas half of the respondents in West Khasi Hills district did so. In pooled sample, 58.33% of the respondents did not practise conventional feed. They mostly depended on indigenous ration, garbage feeding and scavenging. In East Khasi Hills district, majority (56.67%) of the respondents practised indigenous ration sometimes, 40 per cent used it mostly and only 3.33 per cent never used it. The corresponding figures in West Khasi Hills district were 55%, 21.67% and 23.33%. In pooled sample, majority (55.84%) used it sometimes and 30.83% used it mostly and 13.33% never used it. So far as garbage feeding is concerned, a large majority in both the districts (83.33% and 85.00%) practised it mostly and in pooled sample also 84.17% practised it mostly. In respect of scavenging system, majority (66.67%) practised it in East Khasi Hills and none in West Khasi Hills district. The explanation of the above findings might be that the indigenous pig rearing in Meghalaya was mostly confined among the producers of poor socio-economic status and cost of conventional feed was too high which was a major constraint for the farmers rearing Niang megha Breed of Pig. This finding was endorsed by Johari (2013) and Shadap (2015).

**Table 1.** Frequency distribution of the respondents based on their Rearing and Breeding practices

	Practices	Districts		Pooled
		East Khasi Hills	West Khasi Hills	
Rearing	Intensive System	3 (5.00%)	10 (16.67%)	13 (10.83%)
	Semi-intensive System	17 (28.33%)	50 (83.33%)	67 (55.84%)
	Scavenging	40 (66.67%)	0 (0.00%)	40 (33.33%)
	A.I Practice	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Farm boar	8 (13.33%)	19 (31.67%)	27 (22.50%)
	Hired boar	12 (20.00%)	41 (68.33%)	53 (44.71%)
	Unidentified boar	40 (66.67%)	0 (0.00%)	40 (33.33%)

**Table 2.** Frequency Distribution of the Respondents on the basis of Feeding system of Pigs

SI. No	Feeding	Districts	Degree		
			Mostly	Sometimes	Never
1.	Conventional feeds	East Khasi Hills	6 (10.00%)	14 (23.33%)	40 (66.67%)
		West Khasi Hills	10 (16.67%)	20 (33.33%)	30 (50.00%)
		Pooled	15 (12.50%)	35 (29.17%)	70 (58.33%)
Non-conventional feeds					
2.	Indigenous ration	East Khasi Hills	24 (40.00%)	34 (56.67%)	2 (3.33%)
		West Khasi Hills	13 (21.67%)	33 (55.00%)	14 (23.33%)
		Pooled	37 (30.83%)	67 (55.84%)	16 (13.33%)
3.	Garbage feeding	East Khasi Hills	50 (83.33%)	6 (10.00%)	4 (6.67%)
		West Khasi Hills	51 (85.00%)	9 (15.00%)	0 (0.00%)
		Pooled	101 (84.17%)	15 (12.50%)	4 (3.33%)
4.	Scavenging	East Khasi Hills	40 (66.67%)	0 (0.00%)	20 (33.33%)
		West Khasi Hills	0 (0.00%)	0 (0.00%)	60 (100.00%)
		Pooled	40 (33.33%)	0 (0.00%)	80 (66.67%)

### Veterinary Health Care Practices

Table-3 revealed that majority (58.33%) of the Pig farmers in East Khasi Hills district never practised weaning while 66.67% in West Khasi Hills practised it mostly. In pooled sample, 45.83% mostly practised, 12.5% sometimes and 41.67% never practised it. But castration was a widely practised method in the study area with 58.33%, 60% and 59.17% mostly doing it in East Khasi Hills, West Khasi Hills and Pooled sample respectively. In respect of vaccination, the picture was rather gloomy. In East Khasi Hills district, not even a single respondent practised it whereas in West Khasi Hills majority (56.67%) did not practise it. And in pooled sample 77.5% did not do it. However, there was a variation in respect of treatment of the ailing pigs. In East Khasi Hills district, majority (58.33%) never did it, while in West Khasi Hills district, 38.33% did it sometimes followed by 35% did it mostly. In

pooled data, 48.33% did it sometime, 23.17% did it mostly and 22.5% never did it. So far as deworming was concerned, majority (58.33%) never practised it in East Khasi Hills district, whereas in West Khasi Hills district, 38.33% did it sometimes, 35% did it mostly and 26.67% never did it. In pooled data, 48.33% did it sometimes, 29.17% did it mostly and 22.5% never did it. The above findings clearly revealed that the higher percentage for castration might be due to the fact that the villagers followed traditional method of castration, which does not involve high cost. This was supported by Johari (2013) who reported that 100% of the respondents in her study mostly castrated pigs. In respect of weaning, it was difficult in East Khasi Hills district due to widely practised scavenging system. But in West Khasi Hills district it was practised by majority of the farmers to enhance growth rate of the piglets on one hand and to help the sow to resume early heat on the other. It was supported by Deka (2007), Chucha (2004) and Johari (2013).

**Table 3.** Frequency Distribution of the Respondents on the basis of Veterinary Health care practices

SI. No.	Health care	Districts	Degree		
			Mostly	Sometimes	Never
1.	Weaning	East Khasi Hills	15 (25.00%)	10 (16.67%)	35 (58.33%)
		West Khasi Hills	40 (66.67%)	5 (8.33%)	15 (25.00%)
		Pooled	55 (45.83%)	15 (12.50%)	50 (41.67%)
2.	Castration	East Khasi Hills	35 (58.33%)	16 (26.67%)	9 (15.00%)
		West Khasi Hills	36 (60.00%)	5 (8.33%)	19 (31.67%)
		Pooled	71 (59.17%)	21 (17.50%)	28 (23.33%)
3.	Vaccination	East Khasi Hills	0 (0.00%)	0 (0.00%)	60 (100.00%)
		West Khasi Hills	10 (16.67%)	16 (26.66%)	34 (56.67%)
		Pooled	10 (8.33%)	16 (14.17%)	94 (77.50%)
4.	Treatment	East Khasi Hills	10 (16.67%)	15 (25.00%)	35(58.33%)
		West Khasi Hills	21(35.00%)	23(38.33%)	16(26.67%)
		Pooled	31(29.17%)	38 (48.33%)	27(22.50%)
5.	Deworming	East Khasi Hills	10 (16.67%)	15 (25.00%)	35(58.33%)
		West Khasi Hills	21(35.00%)	23(38.33%)	16(26.67%)
		Pooled	31(29.17%)	38 (48.33%)	27 (22.50%)

In case of vaccination, there was a total lack of awareness about this practice in the study area. This was supported by Petrus *et al.* (2011) who found that in Nigeria, vaccination was non-existent mainly because of knowledge on its importance. Similar findings were reported by Kumar *et al.* (2004) who found that only 2.5% of the farmers in North East Region of India adopted vaccination.

### Conclusion

In conclusion it can be said that the scavenging system of Pig rearing is still prevalent among the tribal farmers who were among the tribal farmers who were rearing the indigenous pig *Niang megha* Breed. However, with the imposition of ban in some areas, they have shifted to semi-intensive system of rearing. The usual method of breeding was by own farm boar or hired boar and practice of Artificial Insemination is nil. The farmers could not afford concentrate ration due to their poor socio-economic condition and preferred indigenous ration and garbage feeding in order to reduce the feeding cost and to make pig rearing sustainable in their prevailing condition.

They were practising traditional method of castration and were completely unaware of vaccination of their pigs. In respect of treatment and deworming they were practising these to some extent. Therefore it is the need of the hour to gear up the Extension machineries in the study area to create awareness among the pig farmers regarding vaccination, treatment and deworming.

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