

## Production and management practices of backyard swine raisers in the three selected municipalities of Surigao del Sur

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**Abstract:** The Philippine pig industry is traditionally a backyard dominated operation. Despite the presence of large scale swine farms in some areas of the country, backyard hog raising still predominates in the rural areas. It is one of the livestock enterprises that adds to the meager income of every marginal farmer. This primary objective of this paper is to document the production and management practice of backyard swine raisers in the three selected municipalities of Surigao del Sur. The study made use of descriptive survey method. The primary data were obtained through the use of some part of the questionnaire developed by Curato (2011). A total of 75 respondents comprising of 100 percent swine raisers in the municipalities provided the pertinent data included in this study. The result shows that swine raiser preferred to raise piglets. After weaning, they fed it until it reaches 85 kg. to 90 kg. of slaughter weight so that it can be sold for meat, old during traditional occasions like fiestas and other special events in their family. They use large white breeds and artificially inseminated through the government stock. However, due to high cost of feeds, raisers opted the ratio of 50 percent commercial and 50% local feeds using the feeding trough. Many piggeries were located at the coastal areas and some in the lowland and upland area. The pens were mostly located beneath their houses where they restrain their pigs in pens. The common production scheme adopted by the respondent is breeding with a meager capitalization of P 1000 to 5000. Respondents were raising pigs for 6-10 years with an average of 3-4 heads. The government agencies should extend financial assistance as seed money to the backyard swine raisers.

**Key words:** Swine raiser; Breeding management; Feeding ratios; Fattening; Housing management

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### 1. Introduction

Agriculture is the backbone of the Philippine economy and the prime mover of national development. The economic means of livelihood of more than half of the population is agriculture and it is a key factor in the country's pursuit to become a Newly Industrialized Country status. Reflecting the economic state of the Country, the agriculture sector accounts for more than half of the nation's population who are locked in absolute poverty; the municipalities of Tandag, Tago and San Miguel is part of the quest being inhabited by more or less 80 thousand people NSO Report (2008) as situated in the central part of the Province of Surigao del Sur whose economy is very much dependent on Agriculture. Swine is one potent source of protein in order that human being can meet the demand for not being malnourished TLE, (2000).

The Philippine pig industry is traditionally a backyard dominated operation. Despite the presence of large scale swine farms in some areas of the country, backyard hog raising still predominates in the rural areas. About 83 percent of the total hog populations are in the backyard farmers, the rest in commercial farms PCARRD and (1999). The pigs

raised by the small holder sector were mainly for additional income, preparation during fiestas and other special occasions and also for their own consumption. Swine industry though considered more developed than other livestock industries is still beset with problems affecting further development.

Backyard swine raiser continues to be an important form of livestock production in many low income countries. For example, in the Philippines over 80 percent of all pigs are kept in small scale herds as noted by Posas et al. (1995) cited by Descallar (2008). In low-income countries, the pig herds from parts of the complex mixed farming system managed by backyard raiser. Typically, the backyard raiser are comprised of a small number of native or exotic cross pigs that are kept loose, tethered or confined in pens constructed with local material. They are managed using household labor and fed a range of readily available feedstuffs. The animal provides meat for home consumption, disposal income of household needs, and a culturally important during festivals and traditional ceremonies. Aside from being a source of food, pigs can also serve as source of biogas for kitchen use (Alcober and Dagoy, 2000).

The study likewise identified the breeds of swine being raised in every household so that notable

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cultural practices can be included as one of the most adoptive breed in the locality matching the local innovation in growing pigs. It was found out that only a few studies delved with production and management practices of swine in the locality.

**2. Objective**

The main purpose of the study is to document the current production and management practices of backyard swine raisers in the Municipalities of Tandag, Tago and San Miguel, Surigao del Sur.

**3. Methods**

The main method used in this study was the normative-descriptive survey method by means of questionnaire supplemented by observation and schedule interview. Actual number of backyard swine raiser was obtained from the Department of Agriculture. Proportional stratified random sampling was done by the use of the fishbowl technique to obtain the representative sample after it was computed by slovin’s formula. The total number of respondents was divided equally in the three selected municipality. The respondents were composed of twenty five backyard raisers from each of the tree municipality a total of seventy five raisers.

**4. Results**

Table 1 reflect the socio demographic profile of the swine raisers of the three municipalities of Surigao del Sur. Results revealed that majority of the respondents engaged in this venture were males and only few were females. This could be attributed that swine requires labor; hard work and perseverance especially during farrowing time and heavier task were entrusted to males. There was a remarkable interest and industry showed on this venture by 31-40 years old over those from ages 21-30 yrs old. Strenuous work is needed raise pig in the backyard. The primordial goal of pig raising is for acquiring income and most of these however, all of them have gone to school raisers are married. For them, this venture does not need high educational qualification.

Fishing was the main source of family income with a result of 29 total respondents or almost 39 percent all other occupation has low percentage. To augment their meager income, they coupled it with backyard swine raising, since this venture as cited by Asuncion and Oliver (2001) was considered as the “piggery bank” of every Filipino Family.

**Table 1:** Socio demographic profile of the respondents

Variable	Category	Frequency						N=75	Percentage
		Tandag	(%)	Tago	(%)	Sn Miguel	(%)		
Sex	Male	17	68	15	60	19	76	51	68
	Female	8	32	10	40	6	24	24	32
Age	20-30 yrs old	5	20	6	24	6	24	17	23
	31-40 yrs old	13	52	12	48	10	40	35	47
	41-50 yrs old	4	16	6	24	4	16	14	19
	51-60 yrs old	2	8	1	4	2	8	5	7
	61 and above	1	4	0	0	3	12	4	5
Civil Status	Single	8	32	5	20	3	12	16	21
	Married	16	64	18	72	20	80	54	72
	Widow/er	1	4	2	8	2	8	5	7
Educ. Attainment	Elementary	5	20	5	20	7	28	17	23
	High School	5	20	12	48	14	56	31	41
	College	15	60	8	32	4	16	27	36
Occupation	Farming	2	8	4	16	10	40	16	21
	Fishing	12	48	12	48	5	20	29	39
	Carpentry	6	24	5	20	7	28	18	24
	Government employee	4	16	3	12	2	8	9	12
	Others	1	4	1	4	1	4	3	4
Estimated Monthly Family Income	Below 10,000.00	12	48	13	52	16	64	41	55
	10,000.00-30,000.00	12	48	12	48	9	36	33	44
	31,000.00-50,000.00	1	4	0	0	0	0	0	1
	50,000.00 and above	0	0	0	0	0	0	0	0
Relevant Training	Seminar	1	4	2	8	3	12	6	8
	Personal Experience	24	96	23	92	22	88	69	92

Most of the respondents do not have relevant trainings or seminar attended relative to swine raising

but they were able to raised pigs. Thus, to most of the respondents pig raising is deemed as an important money – saving practice.

**Table 2: Breeding management practices of backyard swine raisers**

Variable	Category	Frequency						N=75	Percentage
		Tandag	%	Tago	%	Sn Miguel	%		
Types of Pig Raised	Piglet	10	40	12	48	14	56	36	48
	Weanling	7	28	9	36	7	28	23	31
	Gilt/Sow	4	16	3	12	3	12	10	13
	Boar	4	16	1	4	1	4	6	8
Purpose of Raising	Fattening	4	16	8	32	5	20	17	23
	Weanling	16	64	12	48	16	64	44	59
	Breeding/Sow	5	20	5	20	4	16	14	19
Types and Breed Raised	Landrace	2	8	2	8	3	12	7	9
	Large White	22	88	22	88	21	84	65	87
	Native	1	4	1	4	1	4	3	4
Methods of Breeding	Natural mating	2	8	3	12	3	12	8	11
	Artificial Insemination	23	92	22	88	22	88	67	89
Source of Boar	Within the pig pen	2	8	4	16	3	12	9	12
	Rental/sharing	12	48	12	48	7	28	31	41
	Government/AI	11	44	9	36	15	60	35	47

Breed must be selected according to their characteristics. One has to select the breed that suits his objectives. Table 2 shows the breeding management practices of the respondents. It could be deduced from the findings that most of the respondent prefer piglets to raised over other types. Piglets are sold as soon as they are weaned. It is easy to rear and tame piglets. This is followed by weanling, gilts/sow, and boar with 23, 10 and 6 responses respectively.

Respondents differ in purpose of raising pigs. Their choice of enterprise to engage depends on the demand of buyers and consumers. Of the 75 total respondents enterprise deals with the production of piglets for sale. Weanlings are fed until they reach 85-90 kg of slaughtered weight so that they can be sold to meat dealers, Supnet 1978 cited by Arganoza, (2007). In type of venture, the raier keep one or two sows mainly for breeding purposes.

Selection of swine breed is an important aspect that affects the performance of the swine production as asserted by Bundy 1975 cited by Pinogan (2007). Respondents were already aware of selecting breed to raise. Large white is the breed that is adaptable to their locality. They attest that when this breed is fed nutritious feeds and managed well, maximum productivity is attained as this is also confirmed the findings of PCARRD(2005). Artificial insemination is widely used among the respondents in multiplying their animals. This is more advantageous than natural mating because it could fertilize a large number of sows in one collection as claimed by Bearden et.al. 1997 cited by Singson (2008). Respondents availed artificial insemination from the Department of Agriculture in their place. But in the presence of boar, they use the natural mating especially if it is with in the pig pens. Others used the rental/sharing boar services.

**Table 3: Feeds and feeding practice of the backyard swine raiser**

Variable	Category	Frequency						N=75	Percentage
		Tandag	%	Tago	%	Sn Miguel	%		
Feed Ratios	50% commercial 50% local	7	28	10	40	12	48	29	39
	25% commercial 75% local	11	44	8	32	4	16	23	31
	100% local feeds (leftover)	7	28	7	28	9	36	23	31
Manner of Feeding	Feeding trough	12	48	10	40	11	44	33	44
	Floor Feeding	5	20	6	24	8	32	19	25
	Movable feederer	8	32	9	36	6	24	23	31

When ask about the feeds and feeding practice, the 75 respondent revealed the following practices that were presented in the table above. The 50 percent commercial and 50 percent local feeds were the common feeding ratios used by the respondents. It can also be gleaned from the same table that 25 percent commercial, 75 percent local feeds and the 100 percent local feeds (leftover) were predominantly used by the same number of respondents. It is because of high prices of commercial feeds, they resorted to mixed feeding and to the extent of using only the local feeds. According to Eusebio (2007), swine is an

omnivorous animal. Being voracious eater, hogs consume different kinds of feeds and can live on left over foods, vegetable peeling, stem trimmings and wasted fruit but it is their concern to minimize the cost of feeds without affecting the health and vigor of the animals.

Proper feeding and nutrition are not enough for a successful swine production. Methods of feeding could also result to better growth and more economical feeding. Supnet 1978 cited by Estal (2004) stated further that “trough feeding” is better than floor feeding because it reduces feed wastage and spoilage. The popular manner of feeding

employed by the respondents is the use of feeding trough in such manner that pigs cannot lie on it and contaminate the feeds. Other respondents deemed it convenient to use the movable feeder especially if

the pig is brought out from the pig pen. Some use the floor feeding but unknowingly aside from wastage, it is unsanitary to the pigs.

**Table 4:** Housing management practices of backyard swine raisers

Variable	Category	Frequency						N=75	Percentage
		Tandag	%	Tago	%	Sn Miguel	%		
Location of the Piggery	Upland	1	4	2	8	20	20	23	31
	Lowland	16	64	6	24	3	3	25	33
	Coasta	8	32	17	68	2	2	27	36
Methods of Restrain	Pens	20	80	18	72	19	76	57	76
	Tethering	2	8	2	8	2	8	6	8
	Combination	3	12	5	20	4	16	12	16
Shelter Used	Shed	5	20	5	20	6	24	16	21
	Under the Tree	3	12	12	48	10	40	25	33
	Beneath the House	17	68	8	32	9	36	34	45
Floor Construction	Slatted and Raised elevated	2	8	4	16	2	8	8	11
	At the Ground	7	28	6	24	15	60	28	37
	Concrete	16	64	15	60	8	32	39	52

The housing management practices of the backyard swine raisers are presented in Table 4. A pig is provided with a house for comfort, protection and feeding purposes. It need not necessarily be an expensive house. Large number of the respondent's piggeries was located at the coastal areas. Hog house should be constructed near the water supply to facilitate bathing of pigs, cleaning of pig pens and alleys of the pen as reflected in the Swine Farming Manual (2000). It need not be spacious but provides proper ventilation. A portable gasoline drum trough can be used as watering trough.

Respondents make sure that no stagnant water forms in the location. During rainy season, they dug canals around the pig pens to drain excess water. To

protect the pigs from adverse condition and to keep them safe, pens were constructed beneath the house with concrete flooring. Thus, the better is the floor construction, the easier to maintain cleanliness and sanitation as affirmed by Cuttler (2000). Raisers who owned one or two pigs do not have permanent pens. They just tie their pigs under the tree and temporary sheds. With these shelter used, the pigs were only at the ground, Lanada et al. (2003) cited that pigs on earth flooring were more susceptible to parasites and diseases.

Backyard Swine Raising is a home-based enterprise through which a family can earn a good income.

**Table 5:** presents the production management practices of the swine raiser.

Variable	Category	Frequency						N=75	Percentage
		Tandag	%	Tago	%	Sn Miguel	%		
Production Scheme Adopted	Breeding	14	56	11	44	10	40	35	47
	Fattening	8	32	9	36	9	36	26	35
	Combination	3	12	5	20	6	24	14	19
Capitalization	1,000.00-5,000.00	14	56	12	48	12	48	38	51
	6,000.00-10,000.00	8	32	11	44	10	40	29	39
	11,000.00- above	3	12	2	8	3	12	8	11
No. of years in Pig Raising	1-5 yrs	8	32	9	36	8	32	25	33
	6-10 yr	15	60	11	44	12	48	38	51
	11 years and above	2	8	5	20	5	20	12	16
No. of Pig raised	3-4 heads	20	80	21	84	22	88	63	84
	5-6 heads	4	16	3	12	2	8	9	12
	7-10 heads	1	4	1	4	1	4	3	4

It can be observed from the data in this table that out of 75 respondents, 35 of them responded that the production scheme adopted by them is breeding. It is because it is a good source for lechon or hog fattening. There I also fast turnover of capital as confirmed by T.L.E. (2000). Though it is the most popular scheme, still others prefer fattening and the least in the combination of breeding and fattening. The table also reflects that most of the swine raisers

have only meager capital throughout the year of raising swine for 3-4 heads.

**5. Conclusion**

It can be concluded that majority of the swine raisers were male, mostly married of middle age group, can raise hogs in the backyard to augment the meager income of the family even without relevant

training attended. On the management practices, the respondent raised large white breed piglet for weaning production from artificially inseminated with a feeding ratios of 50 percent commercial and 50 percent local feeds. As to production practices, they prepare to keep breeding animal for less capital, they have from 6-10 years with 3-4 heads.

## 6. Recommendation

There is a need to conduct relevant training relative to swine raising to better prepare the swine raisers to the demands of such venture. Also, the government agencies concerned should extent financial assistance as seed money to the backyard swine raisers.

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