Existing situation on labour use, health management and problems of buffalo farming in Udon Thani

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ABSTRACT: Existing situation on labour use, health management and problems, and ancillary work done along with buffalo farming in Udon Thani province was studied, There were 52 farms which had been interviewed during August to September 2014. The study revealed that 100 percent of labor use was family labors themselves and all of farmers reared their buffaloes and grew rice simultaneously. The farmers valued veterinary service and advice as the most important problem (40.40%) and buffalo farming health problems were found 7.69% of dystocia, retain placenta and abortion. The major problem that should be taken into account was officials involved and buffalo farming should be continually promoted by government sectors to help solving economic problems as a whole.

Keywords: buffalo, labor use, health management

Introduction

Thailand is an agricultural country since the majority of the population works in agricultural sector (National statistical office, 2014). Buffaloes have been used since centuries by farmers in order to plough their paddy fields. Since 1960 mechanical plough has replaced the buffaloes. Since a few years buffaloes are regaining favors as farmers look back to original practice of farming system. However, there is concern over sharp fall in their numbers. The buffalo population has declined from an estimated 6 million head in 1987 to 1.8 million in 1999, and 1.3 million in 2007, respectively. Experts predicted that the buffaloes could be extinct from Thailand within 10 years. Buffalo farming associated with crop production has been a considerable livestock production, particularly for small-scale farmers in the rural areas of Thailand (Chantalulukana, 1994). Agro-industry that is a large-scale farming has been developed to replace traditional farming so that the necessary in using buffalo workforce has been being decreased from time to time. The objectives of this study were to describe the labor use, ancillary works, and farming problem. This information will be useful for the related stakeholders to promote buffaloes farming in Udon Thani in the future.

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Materials and methods

Secondary data regarding statistics of buffaloes in Thailand during a period of 2000-2011 were collected and interpreted. Fifty-two buffalo farms in Udon Thani were randomly selected to be participated in the study, which accounted for 10.44 % of a total of 360 buffalo farms in the province. The farm owners were interviewed according to the questionnaire during August to September 2014. The data were processed using commercial spreadsheet package.

Results and Discussion

From documents survey and interpretation, it was found that the number of buffalo has been seriously decreased for approximately 30 percent within 10 years since 2000 to 2011. This declination was clearly distinguished in Northeast Thailand (36 %). However, the trend seemed as if it was slightly increased in the North (**Table 1**).

The majority of farm owners acquire additional labours form family members apart from themselves (100 %) and 100 percent of owners have other sources of incomes for example rice production and other agricultural works (**Table 2**). The farmers valued veterinary services and advices as the most important problem (40.40 %) (**Table 3**). Almost one- third of farm owners participated in the study perceived infertility as the most important issue in buffalo farming (30.77%) while dystocia, retained placenta and abortion were the second most important problems, respectively (7.69%) (**Table 4**). The benefit of buffalo farming was identified as providing good and steady income by the majority of farm owners (**Figure 1**)

Table 1 Number of Buffalo in Thailand (2000-2011)

Year	Central Part	North-Eastern Part	Northern Part	Southern Part	Total
2000	98,968	1,406,442	151,829	44,984	1,702,223
2001	104,415	1,413,697	149,856	42,127	1,710,095
2002	102,263	1,317,540	163,953	33,602	1,617,358
2003	114,562	1,316,530	168,526	33,088	1,632,706
2004	97,573	1,215,531	153,211	27,923	1,494,238
2005	130,609	1,241,766	220,610	31,934	1,624,919
2006	100,818	1,046,678	171,742	32,613	1,351,851
2007	129,866	1,175,826	225,970	46,136	1,577,798
2008	112,133	1,010,913	205,815	30,946	1,359,807
2009	112,789	1,022,639	224,379	28,878	1,388,685
2010	96,379	878,350	187,626	28,531	1,190,886
2011	97,319	901,630	202,352	32,878	1,234,179

Source : Modified from National Statistical Office (2014)

Table 2 Labour source, ancillary works and animal culture of farm owners (n=52)

Labor sources and ancillary works	Number of farms (%)
With family members	(n = 52) 100%
Agriculture	(n = 52) 100%
Rice growing	(n = 52) 100%
Animal culture	
Grazing	(n = 32) 61.54%
Stable	(n = 20) 38.46 %

Table 3 Health management and veterinary service (n= 52)

Type of health management and veterinary service	Done	Non
Deworm	(n = 48) 92.30 %	(n = 4) 7.70 %
Vaccination	(n = 49) 94.23 %	(n = 3) 5.77 %
Veterinary service	(n = 26) 50%	(n = 26) 50 %
Veterinary advice	(n = 31) 59.6 %	(n = 21) 40.40 %

Table 4 Buffalo farming health problems

Type of health problems	Number of farms %
Infertility	30.77%
Dystocia	7.69%
Retained placenta	7.69%
Abortion	7.69%
Knowledge of zoonosis	17.30%

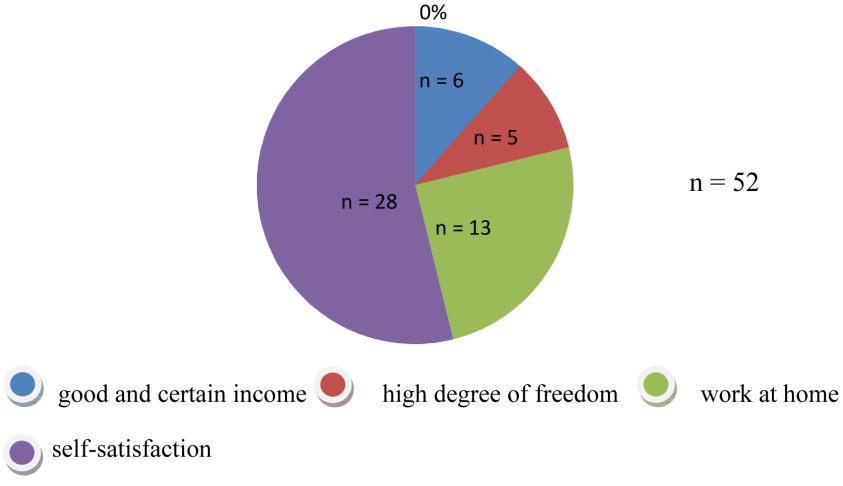

Figure 1 Proportion of the satisfaction on buffalo farming (n=52)

All buffalo farmers in Udon Thani as mentioned in this research study carried out their own farms by using workforce of their own family. They reared buffaloes associated with carrying out their rice production in the paddy field. At present situation, the trend of using agricultural machineries instead of buffalo workforce has been increased (Skunmun, 2012) Nevertheless, the traditional satisfactory relationship between farmers and buffaloes is still highly appreciated as shown in Figure 1 that self-satisfaction of rearing buffaloes is greater than 50 percent.

Conclusion

Regardless of taking advantage from buffalo workforce, farmers also gain directly profit from farm manure of their buffaloes so that they can reduce variable cost of fertilizer application (Thamarut et al., 2014) Additionally, from the interview data, health problems of buffaloes such as infertility (30.77%), dystocia (7.69%), retained placenta (7.69%), abortion (7.69%), and i nadequate veterinary service (50%) caused adverse effect on buffalo health. Therefore, this may induce the decrease of rearing preference and the number of buffalo, respectively (Srisuparbh et al., 1983, Jitasawat S., 1985, Chantraprateep et al., 1990, Pholpark et ai., 1994 and Chaiyabutr and Pruesakorn, 1999). A significant sign from the observation in this research study that should be seriously considered is zoonosis knowledge of farmers because the insufficiency regarding this (82.7%) may cause epidemic diseases from animals to human beings.

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