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Short Communication

Opinion about health issues regarding Transgenic Farm animals

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ABSTRACT

For the betterment of mankind, scientists are trying to overcome all factors that hinder our economy and health. For this purpose they form genetically modified animals or organisms that have required characteristics, improved productivity, better health of animals and production of human required products. In genetic engineering, transgenesis is a process by which we improve genome of an organism. In whole world, people have different views about genetically modified animals. To know these views in our society, a research was conducted. For this purpose, 100 people of Multan, Pakistan were selected. Results showed that our society agrees with this fact that GM farm animals serve our economy but at the same time they don't want to ignore their harmful effects.

Keywords: Genetically Modified Animals, Transgenesis, Genome, Productivity

INTRODUCTION:

From the beginning, man has constantly struggled for his survival. For this purpose, he focused on better productivity and yield of his crops and stocks. Earlier, traditional methods were adapted to improve the livestock's, such as by breeding strategies. Those methods were good but time consuming and laborious. Nowadays genetic engineering is frequently used for this purpose(de Oliveira et al., 2016; Gannon et al., 1990)

Transgenic animals or genetically modified animals have characters that are required by our society, like they have better quality and quantity. Biotechnologists focused on the improvement of meat and muscle parameters(Niemann and Kues, 2007; Solomon et al., 2008). These animals such as featherless chicken, hormone producing cows, blood clotting factor VIII producing goats etc. serve our economy in a better way as compared to non GM farm animals.

But in whole world, arrival of GM farm animals faced controversies by people and scientists. Different societies or areas have their own views about GMOs. Some people support GMOs and at the same time some don't support this concept.

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METHOD:

We used questionnaire method for our survey. The respondents were specific and 100 in number. Out of which 27 were male and remaining 73 were female. All were biology students (biotechnology, zoology, botany, veterinary science, and pharmacy students). The included students were of BS, M.Phil. and PhD degree program. All the students were 18-30 year old.

RESULTS:

The respondents were also informed that their participation was voluntary, so those who participated in this activity were very serious.

Results obtained showed that students have enough curiosity about this field. They thought that we can decrease our food problems by using this technique, but at the same time they didn't want to ignore our natural flora. In addition to this, maximum respondents thought that this technique is also unethical, and our religion doesn't allow us to appreciate this. They thought that by adapting this we are playing with nature and interfering with God's Supremacy, which is

Table 1: Views about transgenic farm animals in our university students

Questions	Male		Female	
	Yes	No	Yes	No
1. Transgenic animals produced products may serve our economy and health positively.	92%	8%	96%	4%
2. We should prefer transgenic animals on naturally produced organisms.	41%	59%	15%	85%
3. Products (milk meat etc.) obtained by them have any side effect on our health.	70%	30%	73%	27%
4. Is any ethical issue in the production of transgenic animals?	37%	63%	70%	30%
5. Do you think it is playing with nature?	63%	37%	80%	20%

not good. All results obtained are given below (Table 1).

Our survey shows that most of the students think of transgenic animals as good for our economy, but at the same time they also consider their negative effects on our health. They think that transgenic animals are harmful to nature. They think that we are playing with nature and disturbing our natural biodiversity. But as we know world population is increasing day by day, we have to fulfill our food and other requirements. According to respondents and their views, we can overcome our food quantity problem i.e. increase our annual yield, but there is some quality issues behind their use. In GM crops and farm animals scientists mostly insert small part of microbes and we know that mutation chances are more in microbial genome due to transposons and lack of high proof reading facility during DNA replication. So it may possible that our product may also become undesirable mutant. The only solution of reducing this effect is the proper labeling on GM food(Runge and Jackson, 1999). Hence, our survey reported that GM farm animals have a promising future and is becoming more and more acceptable in our community with time, however, there are still some issues need to be resolved

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