

T. V. Shevchuk. Selection and genetic characteristics of foxes at cage breeding

Fur is not only a wonderful decoration of clothing, but also one of the insulating factors. Choosing fur, women are guided not only aesthetic considerations, but also practicality of the product. It has a number of physical and organoleptic parameters and commodity characteristics determined genetically. Fox fur is long with degree of density of 60 units and wear – up to 20 years. Colour, tracery, friability, silkiness, and veil availability or silveriness are determined by animal's interior. The purpose of our research was to establish breeding and genetic characteristics of foxes of different colour types at cage breeding.

The earliest object of farming was a fox. It is spread in Europe, Asia and America in the wild. Typically, a wild fox is red colour, but sometimes you can find dark individuals among them – black and brown (in Europe, Asia and America – Alaska), silver-black (in Canada) and intermediate forms between red and black. A characteristic feature of all foxes is a white tail tip. A fox (*Vulpes vulpes*, Linnaeus, 1758) belongs to the genus *Vulpes* of the family *Canidae* of the order *Carnivora*. There are 6 species belonging to the genus *Vulpes*; there are 4 breeds (silver-black, burgundy, pearl and kolikott) and 7 types in the State Register.

Recessive mutation foxes by colour can be divided into three groups by analogy with minks. Blue group includes pearl colour types of foxes. Pearl colour is very close to a silver-black phenotypically, but has the weakened tone of black axial hair, so it seems that colour is gray-blue or gray-brown. Foxes divided into two recessive forms: kolikott-brown and burgundy in brown group. A burgundy fox has a bright (red-brown) colour than kolikott. Eyes of kolikott are blue, and burgundy fox has yellow-brown ones.

A wild red fox is characterized by red colour of various shades from fiery red to almost gray. There are six main types of colour of a red fox: fiery – reddish red; red – bright red, but without fiery hue; red – light red or reddish-yellow; light – light sand-yellow; red and grey – grey with reddish belt along a spine; grey – grey with a dim red back. Variability of colour of wild foxes is largely associated with habitat. The ears and ends of paws (to a carpal joint on front paws and to rear hock) are black. A tip tail is usually white or grey because of grey fluff or certain parts of pigmented hair. Black hair is quite often on a tail and body. Fluff is various shades of grey or brown all over the body.

Albinos are found among foxes as among other animals. They have a pure white colour fluff, depigmented end of nose and claw, light blue eyes with a reddish tint. The colour of white foxes is recessive in relation to the colour of wild foxes. Other names of this fox are Georgian White, Bakuriani. This breed was obtained in Bakuriani fur farm in the forties of the twentieth century. Their coloration is white with black ears and black spots on a face, a back and legs. Creamy shades are considered undesirable. It has been established that homozygotes in this type of colour tend to die.

There are two known fox breeds determining colour: silver-black and black-brown. The silver-black fox originates from wild foxes in Canada, black-brown one – in Eurasia and Alaska. Therefore, black-brown foxes are often called Alaskan silver-black in foreign literature. The silver-black and black-brown foxes can differ externally only that the black-brown fox has hair bundle of brown colour, located near inner edge of a base of an auricle. Sometimes significant development of red (different tone and intensity) spots behind ears, on sides, scapulas and at root of the tail is observed in some black-brown foxes. Awn hair with white area in the middle of them is called silver. Feature of fox silveriness is that it can be extended across a back, sides (silver hair can't be on a belly), on a neck or to grab only some parts of body.

For successful breeding of fur-bearing animals in captivity it needs to know their biological characteristics. Keeping of fox under conditions of fur farms began recently. Furry animals are in the earliest stages of domestication, so they have retained many features and physiological properties characterizing animals in the wild. One of the features is nature of nervous activity. Animals of cage keeping have features of wild, so they can't be picked up without certain warnings; they do not respond to the call of a person, someone of them is evil, while others show timidity. The second feature of furry animals of cage keeping is related to nature of nutrition. The third feature of furry animals is seasonality of their basic life processes – reproduction, moulting, and metabolism.

Conclusions. 1. There are three main groups of foxes according to colour: black, blue and brown at cage breeding.

2. Foxes of original red, silver-black, pearl and "ice" colours are perspective among all colour types in selection.

Keywords: selection and genetic characteristics, foxes at cage breeding, colour types, biological and economic traits, exterior, interior