

METHOD FOR BREEDING INFANT LIVESTOCK AND FEED COMPOSITION

This is a Continuation of Application Ser. No. 08/159, 314 filed Nov. 30, 1993, now abandoned.

FIELD OF THE INVENTION

This invention relates to a method for breeding infant livestock. More particularly, it relates to a method for breeding infant livestock having an effect of improving nutritional conditions whereby the survival rate of newborn livestock, in particular, newborn pigs, those weighing less than 1 kg at birth, can be improved and the growth efficiency of the animals till weaning can be elevated.

BACKGROUND OF THE INVENTION

In the pig raising industry, the number of piglings per delivery has been remarkably increased owing to the recent improvements in breeding and propagation techniques. As a result, the number of the newborn pigs often exceeds the number of the nipples of their mother and the variation in size of newborn pigs is widened. Under these conditions, weak piglings failing to take the foremilk are frequently observed.

Although such weak piglings are born at a ratio of from 10 to 20% per delivery, it is difficult to appropriately feed them due to the recent tendency in the pig raising industry toward the enlargement of scale and reduction of labor or a lack of man power. Consequently, these weak piglings are frequently allowed to stand and die.

In general, a newborn pig weighing less than 1 kg at birth (hereinafter referred to as weak piglings) is poor in reserve energy sources, in particular, accumulated somatic fat. When these piglings go to the outside world or search for their mother's breasts, therefore, glycogen (i.e., the main reserve energy source) is quickly consumed up. Unless they take nutrients during this period, not only weak piglings but also those having heavier weight at birth would die within 2 or 3 days. Accordingly, it is essentially required for newborn pigs to take breast milk as quickly as possible. A pigling of heavy weight at birth can start action to take breast milk immediately after birth. However, weak piglings cannot start action to take breast milk due to the lack of accumulated energy or fail to appropriately control their body temperature, which causes a survival rate of 50% or below. As the body weight decreases, the survival ratio lowers and breeding becomes almost impossible.

Under these circumstances, attempts have been made to elevate the survival rate of weak piglings by breeding piglings with the breast foremilk per se or a similar liquid milk. More particularly, the following methods have been employed:

(1) putting a weak pigling by a man's hand to the breast of its mother;

(2) feeding a weak pigling with, for example, cow's milk contained in a nursing bottle;

(3) thawing swine or bovine foremilk, which has been stored in a frozen state, and feeding a weak pigling with it; and

(4) feeding a weak pigling with a liquefied formula feed containing immunoglobulin.

Also, there has been employed another method wherein newborn pigs are divided into groups depending on body weight and those of heavier weight are separately fed so as to secure breast milk for weak ones.

However, these methods each requires much labor and a long time, which makes it unsuitable for a multiple breeding system. Further, the hard labor is not fully rewarded, since the survival rate is improved only slightly or insufficiently thereby. Therefore, it has been required to established a further improved method therefor.

U.S. Pat. No. 4,925,637 has disclosed a liquid additive for animal feeds which is prepared by dissolving perfumes in a fat-soluble fatty acid and homogeneously blending with fat. However, this feed additive essentially contains perfumes for improving preference and aims at improving workability and solving the problem of caloric saturation in relatively matured livestock. That is to say, no discussion is made therein relating to the improvement in the survival rate of weak piglings as described above. There is a fear that weak piglings would not willingly take a feed containing such an additive, since it is excessively stimulative to them. Thus, the effect of improving the nutritional conditions cannot be always achieved thereby.

SUMMARY OF THE INVENTION

In order to improve the survival rate of newborn livestock, in particular, weak piglings, and to elevate the body weight of weak piglings at weaning, the present inventors have conducted extensive studies on energy sources capable of directly improving the body powers of piglings. As a result, they have successfully found that the survival rate of weak piglings can be remarkably improved by the administration (preferably oral administration) of fats and oils having a fatty acid composition comprising a saturated fatty acid having from 6 to 12 carbon atoms to newborn livestock, in particular, weak piglings and that an effect of improving the nutritional conditions and thus increasing the body weight at weaning is achieved thereby. The present invention has been completed based on these findings.

Accordingly, the present invention relates to a method for breeding infant livestock which comprises orally administering a liquid feed composition comprising fats and oils having a fatty acid composition comprising 10% by weight or more of a saturated fatty acid having 6 to 12 carbon atoms to a newborn livestock within 24 hours from its birth.

DETAILED DESCRIPTION OF THE INVENTION

The composition to be used in the method of the present invention is a liquid which is fluid at room temperature and contains, as the main component, fats and oils having a specific fatty acid composition. Regarding the fatty acid composition, the fats and oils to be used in the present invention comprise 10% by weight or more, preferably 25% by weight or more, more preferably from 25 to 60% by weight, and still more preferably from 25 to 50% by weight, based on the weight of the whole fatty acid composition, of a saturated fatty acid having from 6 to 12 carbon atoms, preferably from 6 to 10 carbon atoms (the weight of the fatty acid and the fatty acid composition are in terms of fatty acid(s)). Although two or more kinds of such fats and oils may be used in combination, the fatty acid composition of the whole fats and oils mixture should fall within the range as specified above in this case. When the content of the saturated fatty acid having 6 to 12 carbon atoms in the fatty acid composition is less than 10% by weight, the effect as an energy source for piglings may not be fully achieved.

The fats and oils to be used in the present invention may be obtained by blending natural fats and oils. However, it is preferable from the viewpoint of adjusting the fatty acid