

ANGORA RABBIT RAISING SERIES PROJECT IN JINHU COUNTY

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Abstract - Angora rabbit raising in the Jinhu County (Jiangsu Province, China) is recent. The number of rabbits in the County was 40 000 at the end of 1994 and 200 000 one year later. There are 256 households with more than 100 rabbits, 840 with 50 to 100 rabbits and 2200 with more than 30 rabbits. The reproduction is obtained in 12 breeding rabbitries : 2 for French-German crossbred coarse wool rabbits and 10 for German fine wool rabbits. Total number of breeding rabbits is presently 1500, increasing up to 2000 heads. The living litter size (at birth ?) is over 8. The survival rates are 90% for litters and 95% for grown rabbits. A strict programme of diseases prevention is applied. It includes rabbit hemorrhagic disease and *Clostridium welchii* vaccinations, and rabbit's cages sterilisation every month. The cages dimension is 60 x 60 x 70 cm. A standardised organisation of cages is developed, named quadrangle shed : cages are around a 10 x 10 m square on 3 levels, with an only door for access. For marketing, of rabbit wool, surveys were made to Anhui, Zhejiang, Guangzhou, etc Nowadays, contacts have been made with foreign businessmen to realise integration of production, supply and marketing.

INTRODUCTION

In 1995, our county endeavoured to develop the rabbit raising as a series project, which has promoted its rapid expansion. By the end of the year, there were 200 000 Angora rabbits in the county, 5 times the figure of the previous year, which is 40 000. The pre-set target for the year was surpassed by a large margin. There were six townships each with over 10 000 rabbits, and 5 villages each with over 5 000 rabbits. A batch of households of large scale raising have emerged. According to statistics, there were 256 households each with over 100 rabbits, 840 households each with over 50 and more than 2200 households each with over 30 in the whole county. It is expected that the rabbit raising alone can make a value of over 6 million yuan for the county in the year. In this work, the basic practice was to do a good job in establishing the four systems.

The breeding rabbit reproduction system

In order to improve the quality of both the rabbits and the rabbit wool, we established 12 breeding rabbit farms with the county domestic animal improvement station as the main over the whole county, including two for France -German cross bred Angora coarse wool rabbits and 10 for German Angora fine wool rabbits. There are now over 1500 breeding rabbits and this figure is expected to be increased to 2000 by the end of the year. They have now produced 2040 living rabbit litters, including 519 in the county breeding rabbit farm, with an average living litter size of over 8. This has laid a good foundation for providing excellent breed seedlings for the rabbit production in the whole county.

Epidemic prevention and disease elimination system

This system has been organised with the county veterinary station as the head, the veterinary stations in townships as the main body, and rabbit raising research societies established at different levels. The techniques to prevent epidemics and eliminate diseases are studied, technical consultation and technical contracting are carried out to guide the rabbit raising and its management. Efforts have been exerted for the following:

Sanitation and sterilisation - Rabbit sheds and the surrounding area are sterilised once a week and rabbit cages sterilised once a month, by either physical or chemical means in different seasons according to different local conditions.

Timely preventive injection - To effectively control and prevent the common serious epidemic diseases and their spreading, preventive injection has been done with vaccines of rabbit hemorrhagic disease and of

Clostridium welchii, each in every 5--6 months, and the operation procedures have been followed strictly to get better results of disease prevention.

Preventive drug administration - While carrying timely preventive injections, we have paid particular attention to the prevention and treatment of digestive tract diseases of the rabbits by adding intestine dephlogistic drug and *Eimeria* prevention drug into the forage at fixed intervals as a preventive measure.

Strengthening technical training - To upgrade the level of raising rabbits in a scientific way by the broad masses of farmers, we have made great efforts in technical training for rabbit raising level by level : from the county station to the township stations, and from the township stations to the individual households. In 1995, we distributed over 3000 technical documents of various types, and held over 50 sessions of technical lectures and training classes of different sizes and at different levels. Over 5000 people attended these sessions and an initial common knowledge of scientific raising and epidemic prevention and disease elimination have been acquired by the farmers.

These measures have effectively controlled the occurrence and spreading of diseases. Now the survival rate is over 95% for grown rabbits and over 90% for litters.

Overall popularisation of square rabbit sheds

Rabbit shed building is an important link in rabbit raising. Reasonable design of sheds and cages has a direct bearing on the efficiency of rabbit production. The square sheds have been designed after our investigation and research and site survey in hundreds of rabbit raising households on the basis of good ventilation, economy and durability, scientific layout and suiting the local conditions. This type of rabbit sheds are cool in summer and warm in winter, well ventilated, clean and convenient and can stop the intrusion by wild animals. They can be built at low cost, therefore readily acceptable by the farmers.

This type of rabbit sheds, also called quadrangle sheds, can be built in front of the farmer house on a high and dry ground of about 10 x 10 meters, with a row of shed on each side to form a yard with a door for access. Each row consists of three storeys of cages covered by a tile roof, with long front eave and short rear eave. The overall height of the shed is 1.8 to 1.95m and each cage sized at 60 x 60 x 70 cm, with a space of normally 15 cm between the storeys. The upper plates, bottom plates (dung plates) and the side plates can all be made of fabricated concrete slabs of about 2. cm in thickness, or built with bricks. The rear walls are normally built with bricks, with holes for ventilation and for cleaning off the dung. A dung trench is provided outside the wall. The bottom and front of the cage are made of bamboo strips nailed onto a bamboo or wooden frame. There is a gap between the bamboo strips of 1 to 1.2 cm for the bottom and about 2cm for the door. A grass shelf, made of bamboo or wire, is mounted onto the cage door. Forage and water basins, of either tinfoil in semi - circular shape or cement in circular shape, about 10 cm in both inner diameter and depth, are put inside the cages. In summer, a shelter can be erected over the shed against the sunshine by growing towel gourd or bottle gourd on it. This courtyard type shed can be built at low cost, at an average of about 15 yuan per cage. The shed is well ventilated with ample light, clean and free from the odour of dung and urine. In winter, it can be kept warm by plugging the wind hole and placing plastic film or grass curtain on the front. As they form a squared yard, it is only necessary to lock the door to prevent the intrusion of wild animals or poultry. Now 80 % of the rabbit raising households have adopted this type of rabbit sheds.

Leading and service system.

It would be difficult to make rabbit raising as a project to enrich the farmers only by the department in charge of this work. It also needs the orientation by markets and the administrative means. We have set up a series of leading organisations at the county, township and village levels, so that there are people to grasp the matter at every level. In the meantime, the forces of the Federation of Women and the Youth League are mobilised to establish their own demonstration and liaison households, and good effects have been achieved. For the marketing of rabbit wool, surveys have been made to Anhui, Zhejiang, Guangzhou, etc. and discussions for cooperation with foreign businessmen have also been held recently, to realise integration of production, supply and marketing. But this job has just been started and is still a weak link. We shall continue to seek for more effective ways for the smooth development of rabbit raising in our county.

Le programme de développement du lapin angora dans le comté de Jinhu - Le développement de la production de lapin angora est un phénomène récent dans le Comté de Jinhu (Province de Jiangsu, Chine). Le nombre de lapins qui était de 40 000 fin 1994, est passé à 200 000 un an plus tard. Il y a 256 familles avec plus de 100 lapins, 840 avec 50 à 100 lapins et 2200 avec plus de 30 lapins. La reproduction est effectuée dans 12 élevages : 2 pour les lapins à poil grossier croisés Angora Français x Allemand et 10 pour les lapins à poil fin Angora Allemand. Le nombre de reproducteurs est de 1500 et devrait passer à 2000 à la fin de l'année. La taille des portées est de plus de 8 (à la naissance ?). Le taux de survie est de 90% pour les portées et de 95% pour les lapins sevrés. Un programme sanitaire strict est mis en place chez les producteurs. Il comporte, entre autres, une vaccination contre la VHD et *Clostridium welchii*, ainsi qu'une désinfection systématique des cages une fois par mois. La dimension des cages construites sur place est de 60 x 60 x 70 cm. Elles sont montées sur 3 niveaux et réunies autour d'une petite cours en formant un carré d'environ 10 x 10 m fermé par une porte, ce qui évite les intrusions des animaux sauvages ou de la volaille. La construction selon cette disposition chaude en hiver et fraîche en été, est fortement encouragée par les responsables des services de développement et ce mode de logement appelé « cabanes carrées » représente maintenant environ 80 % des élevages familiaux. Pour la commercialisation du poil, des tentatives ont été faites à Anhui, Zejiang, Guangzhou, etc. Actuellement des contacts sont pris avec des firmes étrangères avec un objectif d'intégration de la production, des approvisionnements et de la commercialisation.
