

BREEDING HAMSTERS

To the EDITOR:

Having learned that in some laboratories difficulties have been met in breeding the Syrian hamster, a statement of our experience may be of value. Our method of dealing with these animals has been entirely guesswork and no scientific discussion of the matter can be made, but an outline of the method may be helpful.

We started the colony in July, 1938, with 12 animals and at present (April, 1939) we have 157 of them. They bred nicely from the time we received them until November, 1938. At that time breeding ceased completely until February, 1939, when it was resumed and has continued to this date.

Very infrequently an animal has died of an unknown cause or from injuries received in fighting. An occasional litter has been eaten by the mother. It was thought that this might have been the result of handling by members of the laboratory personnel, for there was a tendency on their part to make pets of the animals and to handle them freely. Whether or not

the scent of human hands on the young incites the mother to cannibalism we cannot say with certainty, but for a time that occurrence seemed to be our greatest handicap. Since it was made a rule that the mother or young were not to be touched we have had no further trouble.

The animals have been housed in one of the laboratory rooms which is well lighted, well ventilated and heated by steam. We cannot say how they would fare in other than a warm, dry atmosphere, as we have not tried them in any other. The cages vary somewhat but average $27 \times 27 \times 23$ cm. They are constructed of screen wire attached to wooden frames. The wire for the adults' cages is 0.5 cm. mesh. Cages for the newborn should be made of wire screen used for screening houses, so that the young will not be caught in the mesh. The cages have legs 7 or 8 cm. in length and are equipped with removable galvanized metal trays beneath the screen to catch excreta, waste food, etc. They are given waste cotton, paper and soft straw for making their beds. The mother makes a deep bed of these materials for the newborn and often we do not see them until they are several days old and begin to leave the bed and move around the cage. We leave the young with the mother for 30 days, after which time they seem capable of caring for themselves.

For breeding we put one to three females in a cage with a male. The females are watched from day to day and as soon as one shows signs of pregnancy she is removed to a cage with the fine mesh screen wire and given ample soft bedding. She is not disturbed after that except to open the door and put in food and water daily. The gestation period is short, probably 16 to 18 days. About 30 days after birth of the litter the mother is removed from it and rested a few days before she is again put with a male. Our experience has been that if the female is put with a male immediately after she has weaned her litter there may be fighting, with serious mutilations. Fighting was also noted during the time breeding stopped, in the months of December and January.

The diet we have used consists chiefly of Purina Dog Chow Checkers, made by the Ralston Purina Company, St. Louis, Missouri. This is a complete ration but for the sake of variety we supplement it with other foods, such as dried milk and scrap vegetables from our commissary—carrots, cabbage, lettuce,

turnips, sweet and Irish potatoes, etc. We give more food than is eaten, as the animals seem to delight in hoarding food in their beds and it may be important that this instinct be satisfied.

It must be said that our experience in breeding hamsters is limited, but our colony has multiplied and remained healthy under the conditions outlined.

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[The foregoing note was written on April 3. In a further communication, dated June 12, Dr. Black states that the hamster colony was continuing to do well. A few weeks previously he had inoculated a litter of young at the age of three days. They were handled with rubber gloves and the mother raised six of the seven.—EDITOR]