

# VARIETIES OF FANCY RAT

## THE SELF GROUP

By Ann Storey

The self group consists of the Pink Eyed White, Black Eyed White, Self Champagne, Self Black, Self Mink and the rare Self Chocolate. They have a chequered career on the show bench with the last three never being shown on a regular basis and the first three going through marked cycles of rise and decline in numbers and quality.

### THE PINK EYED WHITE

**The standard:** To be white, devoid of creamy tinge or staining. Eyes pink.

The P.E.W. is one of the oldest coat colour mutants and specimens have no doubt occurred in the wild state ever since rats evolved. It is possible to have two types of P.E.W. with distinct genotypes. The first is the Albino. This is caused by the Albino gene which presents the expression of any other colour the rat is carrying. All present P.E.W.s on the show bench are Albinos. This is important to remember that Albinos always carry a colour and/or pattern. This is true for all Albino animals. The colour and pattern most often carried by domestic Albino rats in this country is Black Hooded, so you should not be surprised at any odd breeding results if you use an Albino in a breeding programme. Some people think you can use them to breed Black-Eyed Whites — you can't. Albino x Albino will always give a litter of 100% Albinos.

The other type of P.E.W. is to breed the Cap off a Pink-Eyed Cap such as a Champagne Capped. This rat would still genetically be a Hooded (I am of course talking about the major Hooded gene and not the polygenes which modify the pattern) and anybody mating one of these to a true Albino would be in for a real shock.

The standard calls for a white animal with pink eyes, tail, feet and ears. There is no pattern etc. to worry about and this should make it one of the easier varieties. In practice however this is hardly the case. The rat must be pure white. The coat of this exhibit always takes on a cream, ivory or yellow tinge with age, especially in bucks. This colouring is accentuated by sunlight, diet, heredity and the type and cleanliness of the bedding. Direct sunlight is bad for the coat colour of all rats, so show stock should be kept out of the sun. It also has an effect on the pink eyes of Albinos and may cause swelling if exposure is prolonged. Carrots and beetroot can colour the urine and stain the fur, this also can happen if a rat has insufficient water as then it passes very concentrated urine. By far the most common causes of staining however is a bloodstained discharge from the eyes and nose, causing patches of pink and brown stain on the shoulders and head, and the wrong type of bedding. The eye discharge affects many varieties but is a special problem in this variety. Sometimes the discharge is visible on the eyelids themselves and this may be due to an eye infection. However, this is not the normal situation but the pink discharge from eyes and nose seems to be fairly natural. Removal of this stain is extremely difficult and washing away one lot encourages the rat to deposit a lot more. The most successful method seems to be the use of a dry or powder shampoo. This condition can be partly controlled by breeding only from rats producing no or little staining. This approach certainly works with Pearls.

P.E.W. rats should be kept scrupulously clean on pure white sawdust and using shredded white paper or wood wool for bedding (not hay). Attention should be paid to the walls and tops of the cage to stop any build-up of grease or dust. Some rats have an annoying habit of laying on the bare floor of the cage after scraping away the sawdust, this also causes staining. Rats only normally do this if they are too hot. Hot rats also sweat, this spoils condition and discolours the coat.

So this is a variety which has a higher number of showable exhibits per litter than almost any other variety but one which requires a lot of work as regards cleaning out etc. It is very suitable for a small stud or the person who only has room for a few rats. It is not so good for a large stud as the owner probably hasn't the time to clean out twice a week or so. With such a high number of showable exhibits per litter more care can be taken with type and size. If you don't mind culling litters, cut down to four at four or five days old, leaving no more than one buck. As they grow into adolescence, discard any which show a marked tendency to staining and any with type faults. Common faults in modern P.E.W.s are: short heads, small ears, piggy eyes, skinny tails, long coats. The long coat probably comes from

P.E.W.s bred down from Himalayans — the original imports were very long in coat. I am almost convinced that thin tails in adults is caused by poor feeding at weaning or before and seems to be more common in conditions of overcrowding — nothing looks worse than a nice rat with a bit of string stuck out behind.

Rearing a litter does yellow a doe and can also thin the belly fur — this can't be helped and except in the odd case P.E.W. does are best retired from showing when you want to breed. P.E.W.s have won almost every major honour in their time, but there has never been a Champion, this is because this variety tends not to last. I think that if a bit more attention was paid to breeding this variety could do more.

Many people are not attracted to this colour and while it is not one of my favourites there is no doubt that a clean, plump, white kitten in sparkling condition is quite something and sure to catch the judge's eye.

### THE SELF BLACK

**The standard:** To be a deep solid black devoid of any dinginess and white hairs or patches. Base fur black. Foot colour to match top. Eyes black.

The Self Black has never been a popular variety although there has been an improvement in both numbers and quality. This is a difficult variety in that it is very hard to get the colour dense enough. This is a strange problem as it does not seem to occur to the same extent in mice or gerbils. The black mutation in gerbils is much younger than in rats but the density of colour is and always has been much better. Too often blacks look chocolate or grey and are subsequently penalised for it. This colour is at its best in a kitten of about eight to twelve weeks of age and this is when to show them. Older than this and the second great problem of black breeding occurs — silvering. All Fancy Rats are silvered to some degree but obviously it does not show up on all varieties. This silvering sometimes lessens with age and you may be able to show them as young adults. Later on the fur tends to take on a rusty tinge due to moult, sunlight or age. The colour of Blacks has improved but it is a long, slow process. The method is, predictably, breeding only from those with the darkest coat colour. Also watch out for long coats as these tend to give the coat an uneven appearance, showing the paler undercoat. The silvering problem is dealt with in a similar way but as it only appears in an older kitten, selection for this must be left until then, discard those with the worst silvering bearing in mind that bucks are worse than does. The other problem in Blacks — white feet, is not anything like as bad as it once was. Selection for feet can be done in the nest. When the litter is about a week old discard the kittens with the worst feet. The only white that can be allowed is a small amount of white on the toes of the front feet. Selection for coat colour and silvering must be done when older. Blacks should only be bred to other Blacks or dark Agoutis. They should not be outcrossed to Minks, Chocolates or Cinnamons. Minks carry a lot of silvering and also there is some evidence to suggest that Blacks carrying Chocolate are more brown in appearance to 'pure' Blacks. Black rats are no smaller and no worse in type than other varieties. To show a Black it must be in top condition and very fit. When they are they are a very attractive exhibit. It is worth drawing your judges' on this one because some will never put up a Black although others will. So rather than waste entry money ask first. Blacks have won three Best in Shows in 1980, 1983 and 1985. One problem that does not affect Blacks is staining and they rarely need any show preparation. This is not really a novice variety and I would not recommend it as a first or second string variety. If you have a bit of room however, it is a nice variety to keep a few of and breed a few kittens a year. If we can keep up the present rate of improvement we may well have a really good exhibition animal in a few years.

### THE SELF CHAMPAGNE

**The standard:** To be an evenly warm beige, with no suggestion of dullness or greyness. Eyes red.

The Champagne is one of those varieties which alternates between extremes, either superb or terrible, and has never enjoyed the lasting quality and success of its Agouti counterpart, the Silver Fawn. The colour is the major stumbling block as it is difficult to maintain from generation to generation. The standard calls for an even warm beige colour — this is quite difficult to visualise unless you have seen it and even judges cannot agree on the correct shade. The colour varies between buff and light grey muddy colour and a litter of Chams even from two good coloured parents may contain a complete mixture of shades. Also the colour should be even all over including the face and belly. Chams often have what is termed as a light, or 'mealy' nose. This is where the muzzle is markedly paler than the body and greatly detracts from an exhibit, especially when it is teamed with a muddy grey body. Another point to remember is the belly. Often the Selfs shown are not Selfs at all, but have white blobs and streaks on the chest and belly. This is a fault which renders an animal unfit for showing but not necessarily for breeding. The best way to see the colour of the belly is to hold the rat up by the base of the tail in daylight. It is not unknown for judges to put up so called 'Self' Chams for major awards just because they have neglected to look at the belly. When you are breeding Chams, get a pair or trio of the best coloured you can find and keep the best coloured kittens from the litters. Cull litters to four or five at four days. It should be possible to see the white belly marking at about ten to twelve days. Don't automatically discard these if they are a good colour. By twelve weeks you will know if a rat is going

to have a pale face and what colour it is, remembering that rats get warmer coloured with age. Discard pale faces and any dark ones. It does not hurt to keep the odd buff coloured rat, these help to stop your rats becoming too dark. Chams tend to suffer from staining and will benefit from the methods I outlined in my article on Pink Eyed Whites for keeping them clean. The best outcross in an Agouti. Silver Fawns are no good because they are mostly all Berkshires which would mean trouble from pied bellies. Blacks can also be used. Do not use Minks or Cinnamons as you risk mixing in the mink gene which produces very pale Chams of a different genotype to show Chams. It goes without saying that Chams must have good type. If the type is poor the best coloured Cham in the world will not win. Chams show quite well from about eight weeks to a year and have one of the longest show lives of any unmarked variety. I personally know of one which won a B.I.S. at a large show at the age of fourteen months. This is a good variety for a novice or experimental fancier, although difficulty may be experienced in obtaining stock. A way of making Chams involves crossing a Black with a Silver Fawn. The first cross should all be Agoutis. Cross an Agouti back with the Black parent and the litter should contain one quarter Chams.

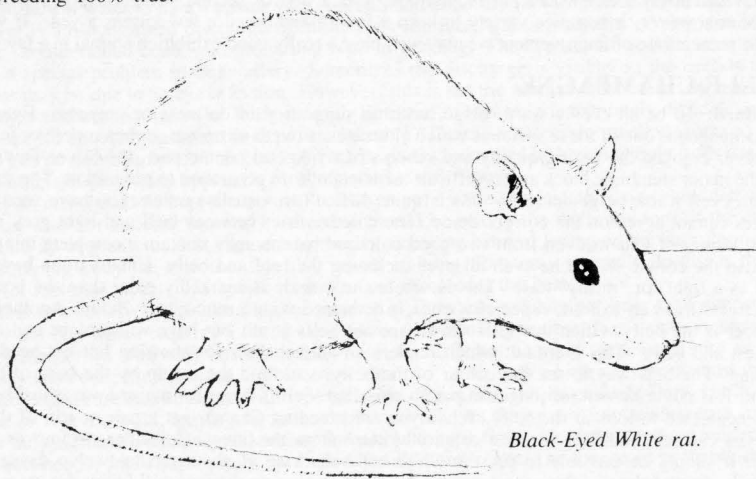
## THE BLACK-EYED WHITE

By Diane Wildman

**Standard:** To be as white as possible, devoid of creamy tinge or staining. Any coloured hairs to be severely penalised. Eyes black.

The Black-Eyed White is a new variety. It came about quite by accident by breeding together a Pink-Eyed White doe born from a Variegated, to a Mink Variegated buck. The resulting litter was a really mixed bag comprising two Champagne Capped, two Lilac Variegated, one Black Variegated, two Mink Variegated, one Mink Capped and two Black-Eyed Whites with head spots. The pair of Black-Eyed Whites with spots were then mated together, brother to sister, and subsequently produced six kittens, of which three were Black-Eyed Whites. One of these did mark up later on. Also another doe which was unrelated to the first doe and buck was mated to the same buck and she also had six kittens, three of which were also Black-Eyed White, but unfortunately two of these Black-Eyed Whites marked up behind the ears and over the eyes. This doe was mismarked Mink Capped. The next step was to get the eye colour to be as black as possible, because out of the previous six born, only two actually had proper black eyes and both of these were marked.

I then bred these two, half brother and sister, together and she produced seven Black-Eyed White kittens of which only three marked up. That was the third generation, but as you can see, we still had not got them breeding 100% true.



*Black-Eyed White rat.*

The main problems we still seem to be getting are: 1) The eye colour — this tends to be inclined more to very dark ruby instead of black. I would probably suggest a Black-Eyed cross, i.e. poorly marked Variegated, for this purpose as I seem to be getting fairly good results from this method; 2) Size is not very good as the original pair were fairly small to start with; 3) Eye size and type need improving, this is mainly due to the inbreeding, which is why I am now going back one generation to find a suitable outcross for improvement.

One thing which I must point out with this variety, as with Pink-Eyed White and other lighter varieties, is that if you don't keep them well cleaned out and fresh sawdust at least twice weekly, then they will stain and it is very difficult to clean off. Sometimes you can't even get it off with bathing. Avoid giving too much in the way of carrots etc. as this makes the urine stained and it subsequently stains the coat almost permanently.

## THE CHOCOLATE

By John Wells

The Chocolate variety has a history which is more than a little confused, whilst there has been a standard for Chocolates since the turn of the century this almost certainly refers to what we today call Mink. Certainly the gene 'b' often referred to as the chocolate mutation is the gene which produces today's Minks, rats with the genetic formula 'aabb' are Mink, the Agouti form 'AAbb' are Cinnamons. This confusion of name makes it difficult to tell when the chocolate mutation as we know it first occurred. The first proven occurrence was of a mismarked Hooded Chocolate bred by Chris Lown in 1981 from Hoodeds of very mixed genetic parentage. This rat was bred first to its parent and from the progeny today's Chocolates originate.

The Standard calls for a deep rich chocolate colour. Those Chocolates I have seen are of two shades, a dark 'plain' and a paler 'milk' chocolate similar to mink but subtly distinct, with the colour tending to be more solid than the mink. My own theory is that these 'milk' Chocolates are a combination of mink and chocolate genes. There has been so far no scientific study of the true chocolate gene so for the purpose of this description I shall give it the letter 'x'. The gene is recessive to black and, unlike 'b', has no obvious effect on Agouti. If my theory is correct, aaBBxx rats are Chocolate (plain), 'aabbxx' rats are Chocolate (milk), 'AABBxx' rats are Agouti in appearance but carry chocolate, 'Aabbxx' rats are Cinnamon and also carry chocolate.

There are two major problems with the Chocolate as an exhibition variety. Firstly the desired colour which is taken to be the plain type is very dark and in some lights, to the unexperienced eye, are barely different to a bad Black. In the nest the colour is distinctly different from that of young Blacks but with each moult the colour darkens. Secondly, like Blacks, Chocolates are very prone to being silvered. In the Chocolate the effect is not as marked. Added to these problems the variety, in my experience, has constitutional problems. They tend not to be as tractable as other colours and can be difficult to handle. All of the females I have bred tend to be slow to mature and need a very good diet if they are to do well. They do not become fat and quickly lose condition when breeding. The males develop normally. I, at first, thought this was a product of excessive inbreeding, however, when crossed to other colours the F1 generation developed normally but any Chocolates in the F2 generation suffered the developmental and temperament problems I have mentioned.

Overall the Chocolate is a difficult but nevertheless interesting variety. As an exhibition rat much work is needed if it is to be successful, the colour needs making more distinct, silvering eliminated and its temperament and growth problems solved. From a genetic viewpoint it is important that the variety does not become extinct even if it never succeeds as a colour itself it is possible that it could be of value in the future in combination with a perhaps as yet undiscovered mutation.

## THE MARKED VARIETIES

By Ann Storey

There are five marked varieties and they are all closely related, being caused by the interaction of a mutant allele on one locus with its wild type. The varieties and their genotypes are: HH = Self, Hh = Berkshire, hh = Hooded/Capped/Variegated. There is another allele, hi, the so-called 'Irish gene' but as its occurrence in the Fancy is doubtful I will not confuse the issue by mentioning it.

## THE IRISH

**Standard:** White equilateral triangle on chest with front feet white and back feet white to half their length. The triangle on chest to be of good size, clear and devoid of brindling, not to extend in a streak down the belly but occupying all the space between the front legs. The body colour shall conform to a recognised colour variety. The Irish used to be the name for the Berkshire when the present Fancy was formed, but after a few months the variety was split from 'Irish' into 'Irish' and 'Berkshire'. The outstanding feature of this variety is the triangle and as the standard says, it should be a large equilateral triangle occupying all the space between the front legs. In practice it can vary from a small white blob to a large uneven splotch with all variations in between. However, the pattern genetically tends to form a triangle so this variety is not quite so hard to breed as it first appears. It is quite easy to breed a rat with a good small triangle or a large triangle which streaks down to the belly (a zip), the trick is to breed a good large triangle. Common faults (apart from the funny squiggles which occasionally pass for Irish on the show bench) in triangles are: small triangles, uneven top of triangle, long and zipped triangles, stray white dots on the belly. Breeding Irish, like all the marked varieties is more difficult than most other varieties and the best results are not necessarily obtained by mating Irish to Irish. This mating tends to give Selves, Berkshires and occasionally Hoodeds but only rarely showable Irish. Other matings are Self x Berkshire, Self x Hooded. Self x Berkshire is as good a mating as any to give you your foundation Irish and may give some very, very good stock. Self x Hooded is not so good for producing Irish. When you have produced your Irish you can try mating them to Selves. This mating gives a lot of Selves and also Irish with well formed but small triangles. By mating these Irish together you may see the triangles enlarge. Mating Irish x Berkshire is not usually any good. This is a variety with no readily available line-bred stock, so you will mostly be working in the dark with stock from mixed parentage. This is probably one reason for the odd breeding results. The other point with this variety is the feet. The front feet are supposed to be white to the ankle and the back feet white to half their length. Quite often points are lost by only the back toes being white. This usually only happens on rats with small triangles. The top colour can be anything except P.E.W., Him/Siam or Silver Fawn, although in practice the darker varieties show best. Like all the marked varieties, the best ones bred are unfortunately usually accidents.

## THE BERKSHIRE

**Standard:** To be symmetrically marked with as much white on the chest and belly as possible. The white shall not be extended up the sides of the body, the edges shall be clear cut and devoid of brindling. Back feet to be white to the ankle, forelegs to be white to half their length. Tail to be white to half its length. The body colour shall conform to a recognised colour variety. The white area shall be pure and devoid of any colour or staining. A white spot on the forehead is desirable.

At the start of the present Fancy, the Berkshire was originally shown as an 'Irish' but after a few months the name Irish was used for a separate variety and the old 'Irish' reverted to the Berkshire, which was its name in the earlier Fancy. This variety is called such because its pattern approximates to that of a breed of pig known as a Berkshire. This pig also has a head spot. The gene pair responsible for the Berkshire is Hh which is the same as Irish. The differing amount of white is due to the presence of white modifying polygenes.

This is a striking variety when it is teamed with Black or Agouti, although Cinnamon, Mink, Chocolate and Cinnamon Pearls are also attractive. Pearls and Champagnes are allowed but handicapped by the lack of contrast. Silver Fawn Berkshires (without spot) are the show Silver Fawns.

The white should cover all the belly and chest without creeping up the sides (known as 'drags'). Ideally, the belly should resemble the belly of a Silver Fawn, with a straight demarcation line running from armpit to groin. However, the standard does not ask for this but only for symmetrical marking with as much white on belly and chest as possible. The white markings on front legs, back legs and tail are known as 'stops' and the stops on each pair of legs should match each other, although in practice a rat is unlikely to be faulted on this point providing stops are there. The tail stop is on occasions completely missing and no rat should win which has not got one. I have never yet seen one which was half the tail length.

The last and least important is the head spot. The presence of this is governed by a separate minor white spotting gene, but the size of it is governed by the white modifying polygenes. For this reason the spot tends to be bigger on animals with more white on them and turns into a blaze on Capped rats. The standard says that it is **desirable** to have a spot, not that it **must** have it. This means that on the show bench if two rats are marked equally well, the one with a spot should win, but a rat with average markings and a spot should never win a class over a rat with good markings and no spot. The spot gene tends to be recessive and mating a spot to a non-spot rarely gives spots, unless the non-spot is carrying it. Spots do however crop up almost spontaneously in studs of Berkshires and by selecting for rats with them you should be able to 'fix' them in.

There are very few people specialising in Berkshires but it should be easy enough to pick up stock as most people have the odd one hanging around. Go for a balanced trio with at least one rat having a head spot. The two does or the buck should be on the lightly marked side and the buck or one of the does slightly heavier marked. Do not purchase rats with drags or lack of tail stop, no matter how good the rat is in other respects as these points are very easily bred in. The markings will get heavier with succeeding generations and when they start to get too heavy they can be counteracted by the use of an Irish or lightly marked Berkshire. A Self outcross is not to be recommended. Another way to improve belly is to use a Silver Fawn from a stud renowned for producing good, white bellies.

Breed only from the best marked rats, not forgetting that type and top colour are also important. If you must use a rat with drags, never mate together two with drags on the same side as this will 'fix the fault'. This variety is probably one of the easiest marked varieties and it is high time we had a few specialists.

## THE CAPPED

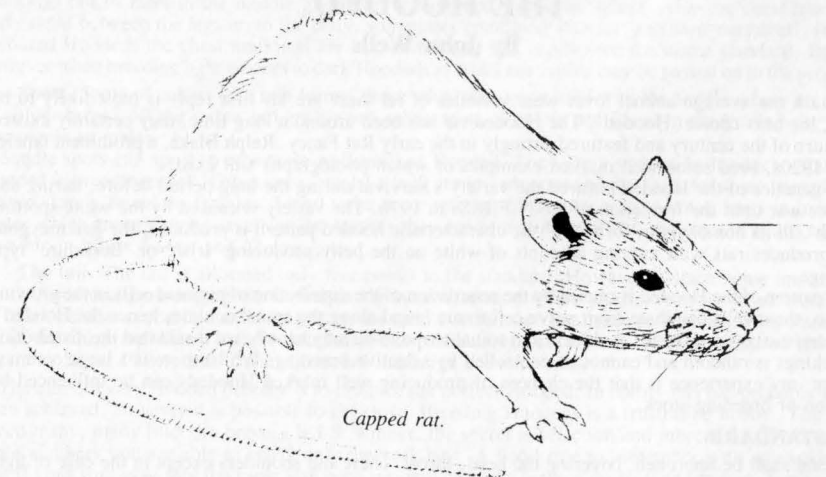
**Standard:** The colour not to extend past the ears and to follow the line of the lower jawbone. It should not extend under the chin. A white blaze or spot on the face, and the rest of the body white. Colour to conform to a recognised colour variety. White area should be pure and devoid of yellowish tinge or staining.

This is an old variety although one which was allowed to die out and the present ones had to be recreated from scratch. The forerunner of both the Capped and Variegated was the Hooded and, more specifically, some Hoods bred back in 1976 by Joanna Hill; an early Society member. These rats had large blazes and the saddle broken up into spots and were tentatively called 'Dalmatians'. These were passed on to Les Suttling and became the foundation stock of the Capped and Variegated.

The Capped rat is a very attractive variety and whereas it was originally bred only in black (still the best colour), it is now bred in a few others as well. Over the last couple of years it has improved greatly and some lovely exhibits have been shown.

The difficulties with this variety are keeping the white clean, stopping the blaze getting too big, keeping the colour to the line of the jawbone and stopping it running down the neck, spots, size and type.

Keeping the white clean is basically a matter of keeping the rat clean and attempting to stop the red stain on neck and shoulders that all rats get but only shows up on the pale ones. For red stain removal I recommend Johnson's Tear Stain Remover, or dry grooming powder rubbed in the coat a day or so before the show. Keep stress to a minimum and handle the rat as little as possible. Stain is only deposited during grooming and as all rodent owners know, they have to wash themselves as soon as you put them down. Don't bath them, this makes the problem worse. Don't breed rats which continuously get bad staining as it is largely hereditary. I have proved this to my satisfaction with Pearls, the early ones which I owned used to stain badly but by selecting against this I have rats which rarely stain whatever their other faults. Try not to breed with rats with big blazes as this feature tends to get worse very quickly. In fact two



rats with only small spots may breed a complete litter of almost white faced rats. It is a good idea if possible, always to have a few Capped with no blaze just to help correct this point when it occurs. The shape of the Cap is clearly defined in the standard but in practice it tends to cut across the cheeks and run down the neck. The neck colour can be reduced by breeding from rats with the least amount each time and it is a fault that is quite amenable to selective breeding. Cheeks with drags and cut-offs tend to be more of a problem but again, strict attention to breeding stock is better than outcrossing. Spots are a fault that tend to crop up from time to time, these are best not bred from. As with Hooded, the best way to breed and keep a good line of Capped is by inbreeding the best ones you breed, keeping an eye out for large blazes or creeping colour. Outcrossing is liable to be harmful and should be carried out with extreme care. In a litter of Capped you can expect lots of mismarked Hooded and Capped and occasionally a Variegated. Both Variegated and Hooded have been used with Caps although not, in my opinion, with any great improvement to them. The problem with inbreeding and rigid selection for marking is that type and size are lost and while the Cap has improved greatly, the rats have become rather weedy. It would be impractical of me to say only breed with well marked rats with good type and size, but try to give it a thought when selecting. As with Hooded, this rat can be selected easily in the nest for marking. Sometimes you will get a rather ordinary individual throwing excellent babies.

## THE VARIEGATED

**Standard:** The head and shoulders to be of any distinct colour with white blaze on the forehead. The variegation to cover the body from the shoulders to the tail, including the sides. The colour to conform to any recognised colour variety. Belly colour to be white, devoid of any creamy tinge or staining.

This rat was bred from the same stock as the Capped and is a totally new variety. I must admit that along with the Chocolate it is the only variety I have never bred, so my views on it are based on other people's experience and my own observations at shows.

To get an idea of what they should look like, go and look at a Dalmatian cavy, bearing in mind that this animal still has some way to go. I still think that Dalmatian is a better name than Variegated. Any thoughts on this one? The Varis of today fall into two types, one has a big white blaze and spots of fairly well defined colour on top of the back only and the other has only a small head spot (please note the standard says a blaze) and a mass of ill-defined spots going well down the sides but with a heavy coloured rump. What we want lies somewhere between these two. I think that anyone starting with this variety should concentrate on breaking up the saddle and getting distinct spots. Outcrossing is almost always doomed to failure so you will have to take care with type, size, fertility, temperament etc. I do not think breeding Varis from bad Berkshires is a good idea, as I suspect the saddle would be even harder to remove. The best outcrosses appear to be Black-Eyed White and Capped.

## THE HOODED

By John Wells

If you ask the average animal lover what varieties of rat there are his first reply is most likely to be White, his next choice 'Hooded'. The Hooded rat has been around a long time, they certainly existed at the turn of the century and featured strongly in the early Rat Fancy. Ralph Blake, a prominent fancier in the 1920s, bred some well marked examples of which photographs still exist.

The genetics of the Hooded ensured the variety's survival during the long period before, during and after the war until the formation of the N.F.R.S. in 1976. The variety is caused by the white spotting gene 'h', in its homozygous form 'hh' the characteristic hooded pattern is produced, the heterozygous 'Hh' produces rats with varying amounts of white on the belly producing 'Irish' or 'Berkshire' type markings.

The pattern of the Hooded is caused by the retardation of the distribution of pigment cells in the growing embryo, these cells originate from nerve cell tissue found along the spinal column, hence the Hooded's characteristic coloured head, shoulders and spinal stripe. You may have heard it said that the distribution of markings is random and cannot be controlled by selective breeding. Whilst there is a large common element, my experience is that the chances of producing well marked Hoodeds can be influenced by selection of breeding stock.

### THE STANDARD

The hood shall be unbroken, covering the head, throat, chest and shoulders except in the case of light coloured hooded varieties where a pale throat and chest is permissible. The hood shall be continuous with

the saddle, extending down the spine to the tail, as much of the tail as possible should be coloured. The saddle width shall be a quarter to half an inch (nearer a quarter) it must be as even as possible and unbroken. The edges of the hood and saddle shall be clear cut and devoid of brindling. The white areas shall be pure and devoid of yellowish tinge or staining.

### POINTS FOR HOODED

	POINTS
Saddle .....	15
Colour of hood and saddle .....	10
Colour of white parts — no spots or staining .....	10
Hood .....	10
Remainder — general conformation .....	50
Total .....	100

Hoodeds can be any recognised colour, Black, Agouti, Cinnamon, Mink and Champagne are most commonly seen. Champagne is in practice too pale a colour to contrast attractively with white. Chocolate is an attractive colour for Hoodeds but rarely seen, I have never heard of Pearl or Cinnamon Pearl Hoodeds, Pear would suffer the same problems of Champagne but Cinnamon Pearl could be attractive. Ruby-Eyed Fawn and Beige Hoodeds exist in the U.S.A. and will, I am sure, eventually be seen in Britain. The Beige is sufficiently dark to produce an attractive contrast with white.

It is very easy to become obsessed with saddle markings when breeding Hoodeds. If you are to succeed on the show bench you must remember that the Hooded is a rat with markings not just a saddle on legs. No matter how well marked a rat is it will not win unless it also excels in colour and general condition too.

### FAULTS

**1. Broken saddles.** The exhibition saddle must be continuous. The wider a saddle is the more likely it is to be continuous. If a rat has the desired quarter inch saddle (which is only the width of a pencil) small variations in width can produce a break, whereas a wide saddle can deviate markedly and still be continuous. Therefore the breeder who selects for breeding only Hoodeds with unbroken saddles is unconsciously selecting for wide saddles.

Small breaks tend to be near the tail root and most occur in the third nearest the tail. As the saddle becomes narrower it may break up into a chain of spots or even disappear altogether.

**2. Brindling.** Caused by irregularity of the markings edge with small areas of white in coloured areas. Selecting for clean cut edges of markings helps eliminate it.

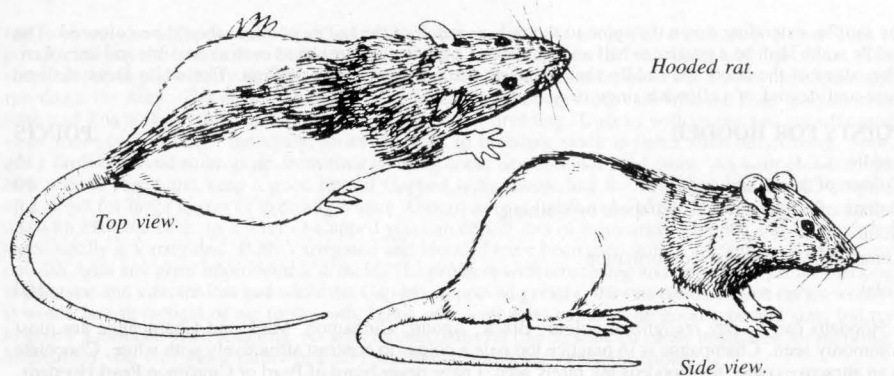
**3. Hood problems.** The upper hood is often without problem with its edge at right angles to the saddle sweeping round on to the chest. A common fault however is that the hood merges into the saddle rather than a right angle between saddle and hood. The effect is particularly unattractive and Hoodeds with the fault are to be avoided for breeding. The markings on the chest can be a problem. Sometimes the markings fail to meet in the middle giving an 'unbuttoned waistcoat' effect. Also the chest markings can extend between the legs on to the belly, sometimes combined with an 'unbutton waistcoat'. In pale coloured Hoodeds the chest markings are not visible and this is allowed for in the standard. Beware however when breeding light colours to dark Hoodeds as faults not visible may be passed on to the progeny.

**4. Spots.** Spots of colour take two forms, those which are associated with the saddle where an island of colour breaks off the stripe and groin spots when spots of colour are found in the lower belly more commonly in males.

Saddle spots can spoil an otherwise well marked Hooded. They are a serious fault which should be avoided in breeding stock. Groin spots, whilst a fault are less obvious and they are, for some unexplained reason, rarely found on females. I tend to be more tolerant of them accepting small spots in breeding males which are otherwise excellent. In Agoutis they are sometimes difficult to detect in adults and are invisible in Silver Fawns and Champagnes.

**5. The tail.** The tail is allocated only five points in the standard. However I attach some importance to it when selecting breeding stock. I regard it as an extension of the saddle. Aim for a tail which has as much colour as possible extending from the saddle to tail tip. Realistically I have always found the tip of the tail to be white. An all white tail looks particularly out of place on adult coloured Hooded. Again in Silver Fawns and Champagnes tail markings are not visible.

The aim of every Hooded breeder is to produce the perfect Hooded. In reality this has probably never been achieved, however it is possible to get close. Breeding Hoodeds is a frustrating hobby. You must breed many, many litters to breed a B.I.S. winner, the secret is selection and inbreeding. By breeding large numbers you are able to select only the very best. A good rule to remember with any variety is that if your stud is to stay the same size each rat only needs to replace itself in its lifetime. For females



*Hooded rat.*

*Top view.*

*Side view.*

this means if you produce five litters per doe and 50% are does only something like one in every twenty five does is retained. Most studs keep fewer bucks and for them it is more likely to be one in a hundred or less. Also remember that no matter how good a rat was on the show bench, in the breeding pen it is only as good as its progeny. No matter how much winning a rat has done, unless its young are of high standard there is no point in retaining them. In Hoodeds the best breeders are not always the best show rats, there are three distinct types to keep, those with narrow continuous saddles (show rats) and those with wider even continuous saddles and narrow broken saddles (breeders). In my stud I find mating show rats together rarely produces anything of note. It is better to mate wide continuous saddles to show quality or narrow broken saddles, never wide to wide, narrow to narrow or broken to broken. In my experience mating wide to wide produces young with wider saddles, narrow to narrow narrower, broken to broken more broken. It is better to mate wide to narrow even if the narrow saddle has a short break.

I have found it useful to keep fairly detailed records of my breeding rats including pedigrees. Pedigrees alone are near useless unless records are kept of the quality of the rats they contain. Records do not have to be detailed and take up a lot of time. My own records list the good points and faults of each rat kept with a simple diagrammatic drawing of its markings or ideally a photograph. I also keep a record of each litter born with comments on the quality of the young and those kept for future breeding. By consulting my record book I am able to plan future matings, often it can be deduced that a particular rat has a strong good or bad influence and its use can be planned accordingly.

Anyone who breeds Hoodeds must be prepared for frequent disappointment, many litters are bred which contain nothing good enough to keep. Even though I have bred many litters of Hoodeds, every time I examine a new litter I still hold my breath, will this be the litter containing the perfect Hooded? Occasionally I find a kitten with markings approaching the standard, will it have good colour and type is my next question.

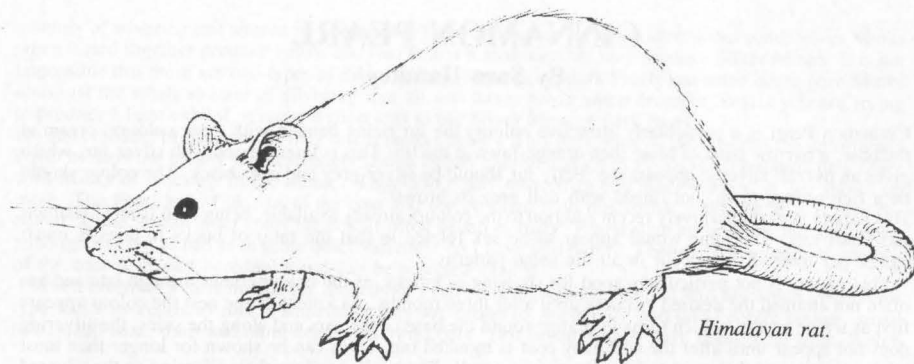
The Hooded is not for the fancier looking for instant success. Also it is not a variety for someone who wants to keep just a few rats as pets and show as well. To be successful you need to keep a largish stud and therefore have a good market for surplus kittens. They are a challenging but immensely enjoyable variety, the unpredictability of their breeding, to me, is part of the attraction.

## HIMALAYAN AND SIAMESE

By Eric Wilkinson

The Himalayan and the Siamese are far and away my favourite varieties. They need to be discussed together since they both owe their distinctive pattern and colouring to the Himalayan gene (Ch) as do the Himalayan Cavy and Rabbit and the Himalayan and Siamese Mouse and Siamese Cat.

Beginners with these varieties are advised to study the official standards carefully, but also to observe as many winning show animals as possible. The standards describe the desired ideal appearance of the two varieties and the actual Himalayans would come as quite a surprise to a rabbit breeder, for instance, who was expecting to see a pure white body and clearly defined 'points'. At the present time, good dark points go with a rich creamy body colour, which I personally find very attractive — but it does not fit



*Himalayan rat.*

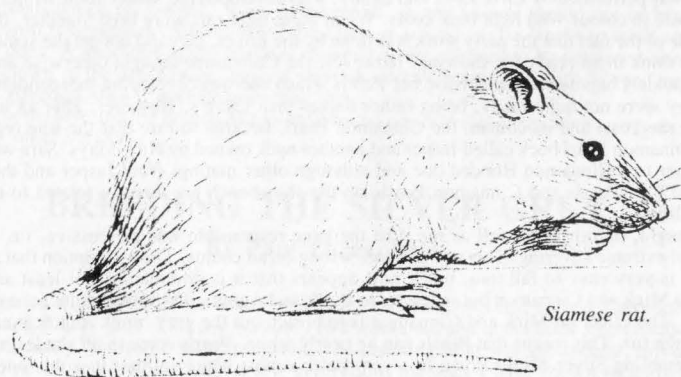
the standard. The paler body coats (I have not yet seen a really white one) usually go with pale, ill-defined points. The required dark body shading of the Siamese often goes with a dusky, dirty looking background colour. Much patient and thoughtful breeding needs to be done if we are to produce and stabilise two clearly separate types, each with its own clean looking body colour (white in one case, medium beige in the other) and with bold points and shading.

There is a tendency for Himalayans to get darker with succeeding generations (especially the bucks in some strains), so that one could find oneself producing poor Siamese. There are various theories about both varieties — one being the use of Black-bred P.E.W.s. Another problem with both varieties is pale feet. My own stock, after several generations of nice dark feet, suddenly started producing pale-footed youngsters. This may have been the result of Berkshire markings (from my original Black Berkshire stock) as they still had dark legs.

The shaded areas produced by the Himalayan gene (which is a 'semi-Albino' gene) are not, like other colours, 'fixed' at birth according to a pattern of pigmentation on the skin. The degree to which they develop depends mainly on heredity but partly on environmental conditions such as temperature. (It is the coolest parts of the body which develop pigment.) Young kittens are usually an all over creamy shade with their points filling in as they mature — so you cannot quickly cull out poorly marked specimens. Kittens born in a cold winter could be considerably darker than those born in a warm summer, but this would not necessarily have any effect on their final appearance. Markings are also apt to change with moults, particularly if the environmental conditions have changed.

Some of today's strains excel in body type and have good long tails, size, soft coats and docile temperaments.

You can call them frustrating or challenging, according to your mood and outlook and we certainly have a long way to go with them, but at their best they are, in my opinion, the two most fascinating varieties in existence.



*Siamese rat.*

## CINNAMON PEARL

By Sara Handley

Cinnamon Pearl is a particularly attractive colour, the fur being banded with three colours; cream at the base, a narrow band of blue, then orange-fawn at the tip. This is interspersed with silver fur, which gives an overall silvered appearance. Belly fur should be silver-grey and eyes black. The colour should be a rich orange-fawn, not tinged with dull grey or brown.

This variety is a comparatively recent addition to the colours already available, being bred from Cinnamon and Pearl rats. The gene would appear to be sex related in that the ratio of bucks to does is much higher per litter. It can occur in all the usual patterns.

This variety is not particularly good for showing as kittens, as the colour comes through late and has often not attained the desired richness until after three months. As kittens in the nest the colour appears first as a pale cream, which turns to orange round the base of the ears and along the sides, the silvering does not appear until after the soft baby coat is moulted out. Does can be shown for longer than most other varieties, as they tend to keep their colour well. The bucks can lose their silvering or the silvered hairs become long and untidy as they get older.

Because does can be difficult to obtain, care should be taken when breeding to pick a good doe and not make do with any available doe. Pearl does can always be used if a Cinnamon Pearl is not available, but obviously the litter will contain a higher proportion of these colours than if a Cinnamon Pearl was used. Any resulting does can always be bred back, thus increasing the odds of Cinnamon Pearls occurring in the next litter. Although the proportion of Cinnamon Pearls will be less, or none at all in the first litter, each rat will be carrying the potential and can be bred back to other Cinnamon Pearls.

Because of the shortage of good breeding stock it is tempting to breed with any Cinnamon Pearl available, but this should be avoided. It is better to outcross to a good unrelated Cinnamon or Pearl buck or doe, than to inbreed back to a substantial Cinnamon Pearl. Once faults occur in a line they can be difficult to eradicate and keeping careful record of all breeding stock can make it much easier to keep track of outcrossings and matings. Any rat with congenital faults should immediately be eliminated from any breeding programme.

## THE PEARL

By Ann Storey

**Standard:** To be palest silver, shading to creamish undercolour. Each hair to be delicately tipped with grey evenly over the whole animal. Belly fur pale silver grey. Foot colour to match top. Eyes black.

The Pearl is a relatively new variety that was developed from the Mink. The pioneering work with this variety was performed by Clive Love and family, who developed the Mink. Some Minks they noticed were very pale in colour with light base coats. When these light rats were bred together, the Pearl was born. In spite of the fact that the early work was done by the Loves, they did not get the standard because they did not think them ready for showing. However, the Committee thought otherwise and eventually persuaded Jackie Chapman to standardise her Pearls which she was developing independently of Clive, although they were not quite ready, being rather darker than Clive's. However, after an initial rush of enthusiasm, the Pearl and its cousin, the Cinnamon Pearl, became so rare that the sole representatives were one Cinnamon Pearl buck called Jasper and another buck owned by Nick Mays. Sara was persuaded to mate Jasper to a Cinnamon Hooded doe and although other matings from Jasper and the other buck occurred, 90% of Pearls and Cinnamon Pearls on the showbench are directly related to the offspring of the first litter.

It was thought, by others as well as me, that the gene responsible was a recessive, i.e. probably an expression of extreme silvering. This now appears wrong on all counts. The assumption that a new colour is recessive is very easy to fall into, but it now appears that it is dominant (or at least an incomplete dominant) to Mink and Cinnamon but recessive to Black and Agouti. The effect of the gene on Chocolate is unknown. The effect on Mink and Cinnamon is to bleach out the grey 'mink' pigment except for the grey tips to the fur. This means that Pearls can be nearly white. Pearls come in all shades, ranging from animals resembling Silver Minks down to a very pale, almost white animal. It is this one that we are aiming for. It is possible that Silver Mink and all the shades of Pearl are the same genetically, with the

quantity of silvering just altered by polygenes. This is borne out by the evidence that some Silver Minks when mated together produce Pearls and two Pearls mated together may produce Silver Minks. It is not impossible that there are two types of Silver Minks, some being dark Pearls and some being pure Minks with just the small amount of silvering that all rats have. Since when breeding Pearls you are trying to produce a light exhibit, it is not a good idea to use Silver Mink or dark Pearls in your breeding programme as they throw darker babies. This darkening of the coat has the unfortunate effect of showing up any moult stronger than a lighter exhibit and gives Pearls the reputation they share with Minks of 'sticking in the moult'. They don't, any more than any other variety, it just shows up more. The Pearl has Mink tips to the coat and the problem with this is that when the coat is new the colour is fine, but in older coats the colour often becomes rusty. Pearls stain up on neck and shoulders, although it is not as bad as in some other varieties. As I have said before, I believe that excessive staining of the coat is in part hereditary and can be selected against.

When breeding Pearls the darker shaded ones can be recognised in the nest and discarded. Watch for type faults in Pearls as this is something they are prone to, especially thin tails, cobby bodies, small size, small ears, short and blunt heads and long coats. This breed usually have good, bold eyes. Watch

## THE SILVER GROUP

By Ann Storey

**Standard:** To be of a recognised coat colour, the coat containing equal numbers of silver and non silver hairs. Each silver hair to have as much of its length white as possible — a coloured tip to be allowed. Silvering to give an overall sparkling appearance. It should not be possible to confuse a Silver with a Pearl or a Self. Foot colour to match top.

The Silver is recognised in five colours — Silver Grey (Black), Silver Agouti, Silver Cinnamon, Silver Mink and Silver Chocolate. There is no separate major silvering gene in the rat and the silvering seen is polygenic except in the case of Silver Minks and Cinnamons where the silvering is due to the gene responsible for Pearl. All rats are silvered to some degree, although it only shows up on dark coated varieties and can be a curse or a blessing, depending on what you are trying to breed. Unfortunately, the silver class is usually filled with the throwouts of 'Self' and Pearl breeding programmes, one is usually too lightly silvered, the other has a light base coat.

What is needed to breed Silvers as a variety in themselves. Basically you must select for white hairs, the best and easiest varieties are Silver Greys and Minks. Greys and Chocolates are improved by selection alone, while Cinnamons and Minks may be improved by a Pearl outcross, although overuse of Pearls leads to a light base coat which is a fault. Care must be taken to see that the whole rat including head and belly is evenly silvered — too often a rat with a well silvered body loses out on these points. Also a problem is moult, especially for Silver Cinnamons and Minks, moult can be helped along by a daily grooming. Animals which persistently 'stick in the moult' in any variety should not be bred from as it is possible that it is hereditary. Silvers are at their best at around twelve weeks to adult and is better on bucks than does. A good one really sparkles. Silver rats are allowed to be patterned although then they must be shown in the appropriate marked class. A common problem with Silver Greys is poor shaped heads. Breeders should attempt to correct this. temperament, both these and the related Minks have been known to throw rats with an aggressive streak more than any other variety.

## BREEDING THE SILVER GREY

By Paul Threapleton

When I first started with Silver Greys it was completely by accident. I had a good Pearl buck in a pen with a very young P.E.W. doe. This doe was only five weeks old and in the buck's pen for two or three days and unfortunately (for her) became pregnant. The resulting litter was spectacular; Silver Greys of a quality I had never seen before. After a few generations the ones I have shown recently have done very well (I've had a B.I.S. and a B.O.A. with two different rats). I have, however, found three things

with my strain of Silver Greys:

1. Never show does as they do not show the same quality of silvering as do the bucks.
2. Beware using rats with very white feet because once bred in, it is very difficult to breed out.
3. At present I am getting approximately 25% Silver Minks in litters (but no Albinos now!).

So for those of you who are interested in breeding Silver Greys this is how to do it:

Contact a breeder and choose a big tippy buck with good silvering and a doe, which will have poor silvering. Don't go for anything with very white feet! Mate these together and keep two bucks and a doe from the litter. I breed only brother and sister because it has a tendency to show up major faults better than other matings. Also, use rats with white belly patches sparingly and do not use Silver Minks at all. Silver Greys go very rusty in colour after about eight months and since you can only exhibit bucks it is possible to keep two or three does and perhaps six bucks and maintain an excellent winning stud. Remember to select for size and type at all time, never let that slip. Also, if you do not get what you want in a litter repeat the mating. All I can say now is good luck and may the best rat win.

## THE AGOUTI GROUP

By Ann Storey

### (a) THE AGOUTI

**The standard:** To be a rich ruddy brown, evenly ticked with black guard hairs. Base fur dark grey to black. Belly fur to be silver grey. Foot colour to match top. Eyes black.

This is a refined version of the wild Agouti. The wild type tends to be a dull grey brown in colour. The show type has been selected for a rich red brown. The coat is made up of three bands of colour, bottom is dark grey, second is orange brown, top band is black. The object of selective breeding is to produce a bright mid band and rich black top. The black top produces the ticking down the back and to lack ticking on the sides. The belly should be a bright silver grey, each hair being made up of two bands of colour — bottom grey, top silvery white. The aim is to produce a contrast to the top. The problem is to watch for yellowing of the belly. This is sometimes caused by age or staining and also selection for red top tends to give a yellow tinge to the belly. The eyes should be big, round and black and the ears and tail covered in fine black hair.

Main faults are white feet, poor top colour. The correct foot colour is agouti although in practice pale toes are accepted. There should be no trace of greyness in the top colour and this should be selected against. Never use a silvered or pearl rat as an outcross and only use Sells or rats with no white markings. In the nest discard kittens with white feet and keep the most gingery looking ones. (Remember that both Agouti and Cinnamon appear to have white bellies until two weeks of age, they are NOT however white, but silver grey). Young Agoutis are often a disappointing colour but they 'colour up' with age. Really this is one of the easiest varieties to breed as it does not suffer from staining unduly and there are no markings to contend with. This is a very suitable novice variety. To show this rat must be in tip top condition like all dark coated and ticked rats. There is rarely any need for much in the way of preparation before a show.

### (b) THE CINNAMON

**The standard:** To be a warm russet brown, evenly ticked with chocolate guard hairs. Base fur mid grey. Belly fur as Agouti but of a lighter shade. Foot colour to match top. Eyes black.

The Cinnamon is closely related to the Agouti and suffers from many similar drawbacks and advantages. The colour to aim for is a rich biscuit brown with no tendency to greyness. This is a common fault with Cinnamons. The colour should be bright and alive and even. This variety is sometimes rather patchy with areas of different shades of brown. The ticking should be a rich chocolate and the belly a light silver grey more a pastel shade than the Agouti belly. Kittens are often disappointing in colour but will brighten up with age. Discard any with white feet and keep the ones with the brightest colour. Commonly used outcrosses for Cinnamons are the Agouti and Mink. Mink is okay providing it is not from a strain of Pearls in which case you run the risk of introducing silvering. This variety suffers badly from silvering, which is one good reason for not using Minks as they seem to carry a lot of silvering. One advantage with Mink x Cinnamon mating is that you always get Cinnamon first go whereas with Cinnamon x Agouti you will only get Cinnamon first go if the Agouti is carrying Mink. In spite of this I recommend Agouti (as bright as possible) as the best outcross and several people successfully run strains of Agouti and Cinnamon together. The ears and tail should be covered in fine chocolate hairs. The eyes should be big, round and black.

## THE SILVER FAWN

By Ann Storey

**The standard:** To be a rich orange-fawn, evenly ticked with silver guard hairs. Belly fur to be white. The definition between top colour and white belly to be clear cut and devoid of brindling. Eyes red.

The Silver Fan is one of the varieties originally developed at the turn of the century and probably originated from a wild caught mutation. The early fanciers used to show 'Fawns' which they later called 'Silver Fawns'. The term 'silver fawn' is a misnomer and very confusing, since people mix it up with silver fawn in mice and rabbits. The nearest approximation to Silver Fawn rats in mice is Argente. The Silver Fawn comes in two distinct types, white bellied which is shown, and yellow bellied which is not. The white bellied type is a Berkshire but has been accepted as a variety in its own right because of its attractiveness. Indeed, throughout the years the modern Fancy has been in existence it has been by far the most outstanding variety, winning most of the N.F.R.S. championships.

The points to look for on a top grade Silver Fawn are as follows:

Good type — Silver Fawns cannot get away with poor type. Competition for first place is too fierce. The same can be said for:

Condition — must be very fit and in top condition.

Ticking — the ticking is even, bright and distinct, giving a silver sheen to the coat.

Colour — a rich bright orange, even in colour all over.

Belly — white with no stains or thin patches.

Definition — a sharp line between white and orange running between armpit and groin.

To breed good Silver Fawns you must start with really good foundation stock. This is one variety where champions tend to breed champions. Start with the best you can afford and choose only rats bred from a line of winners. Do not use throw outs from Berkshire breeding programmes. When your litter is born, remove all except one or two of the biggest buck kittens, but leave the does (do this at four days). When the kittens are about eight to ten days you should begin to see the definition. Throw out kittens with flicks (or drags) of white up into the orange. The kittens first few moults are disappointing, but keep them spotless to avoid staining the white bellies. At about ten weeks the colour will come through enough for them to be shown. Discard any with poor definition (this shows up as a fading of the top colour into the belly colour instead of a sharp line), por type or yellow bellies.

Before a show clean the ears and tail. Any belly stains are best left to moult out as it is almost impossible to wash them out, although you could try French chalk. Silver Fawns tend to colour up with age and adults are much brighter than kittens. When it comes to selecting breeding stock, do not use rats with greyish ticking or washed out colour. Try to breed from rats with a short coat as this emphasises the silver sheen. One other fault which is sometimes seen is a pale face and shoulders — the orange should come up to the whisker bed.

If your rats become too dark you may carefully use a light coated Silver Fawn as an outcross. The Silver Fawn is a Pink-Eyed Agouti and is you cannot find a suitable Silver Fawn for an outcross you can use an Agouti Berkshire or Irish. Pink-Eyed Cinnamons are sometimes shown as Silver Fawns but these are much too light in colour and should not be used.



## THE REX

By Beverly Bruges

Breeding a good Rex is not a difficult thing to do, but does take a large amount of time, patience and, of course, space.

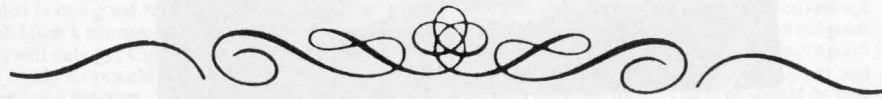
Unlike other breeds you cannot spot a good Rex in the nest, as it can take up to six months for the Rex to achieve its best coat and then it will only keep this coat until a maximum of eighteen months old, when bald patches will start to show. This short show life is impractical for the small breeder as it will require you to keep a lot of stock at first, till you can, with experience, spot the potential of a good Rex at a very early age. The bucks seem to obtain the curliest coat and a rat which seems hopeless as a kitten can surprisingly turn out to be a good adult. The Rex can be bred in all varieties, although the curl of the coat can make the marked ones not true to standard, especially the Hooded (the curl can make the saddle crooked). The best Rexes I have seen and bred have been Selves in White and Black, as these two colours show up the curl best. To obtain a really good curl, you have to have really good stock — which applies to whatever variety you decide to take up. The Rex is one variety that is best bred alongside another, then you can have the best of both worlds by being able to show in more than one breed class. When you have decided on your other variety, obtain a trio of a normal buck and two female Rexes or vice versa, then your litters will be fifty-fifty Normal and Rex. Do not make the mistake of breeding Rex to Rex or you will end up with bald Rexes, as the double dose of Rex leaves them with a very short, tight coat with bald patches and they are not good showing. Follow the usual information for rearing litters — as for other varieties. Some breeders may disagree with me, but I believe in feeding Farex baby food to the kittens until they are eight weeks old, as I find this increases their size. Keep the Rex bucks as they make the best show rats, but do not keep more than four unless you have plenty of space.

To prepare for showing is easy, except with the White Rexes, when it is advisable if they are very dirty, to bath them in baby shampoo two days before the show to give the curl of the coat time to settle down. Cleaning all tails is important and best done with soap and water and an old toothbrush.

The Rex can be one of the prettiest varieties to breed as some Self Whites can look like little lambs, but they are a variety with a short show life and to breed a good one is very hard work, but very rewarding.



Rex rat.



## —MISCELLANEOUS RAT MATTERS—

### TAILLESS RATS

By Nick Mays

Early in September 1985, one of my better Silver Fawn does gave birth to a small litter, containing only two kittens, a buck and a doe. The doe took after her mother, being Silver Fawn with a fine, 'whiplash' tail of regular length. The buck however was Silver Fawn Hooded (and rather mis-marked) and was noticeable for his complete absence of tail. There was no scab, stump, scar or vestige of any kind where his tail should be, although at first I put his condition down to over-zealous washing on his mother's part. I didn't rate his chances of survival very highly at first, as his mother constantly upended him to examine his rear quarters very carefully and vigorously wash them, perhaps in the hope that a tail would start to grow. However, he did survive and grew to be quite a sizeable animal. The only off-putting thing (to me, at least) about his lack of a tail was that his testicles grew larger and more prominent than on a normal buck, although this condition is easily explained insofar as, a) there was no tail to restrict the upward growth and, b) as the tail forms a major sweat organ in the rat, possibly the testicles grew larger to compensate for this, being a secondary sweat-organ.



Typical Tailless Rat.

At the same time, Jean Judd also discovered a Manx kitten in her stud (a Rex), but this rat, although very well cared for by Jean, as are all her animals, suffered from the 'Manx curse' — Spina Bifida, which affected his hips and, consequently his ability to walk. 'Frog', as the rat had been named, died aged only a few months. A little checking into Manx cat breeding revealed that several Manx cats suffer from Spina Bifida, so their breeding is a very selective process. It seemed to me that Manny was rather lucky not to inherit this condition. However, it would appear that although he could walk perfectly and had no visible deformation, he may have inherited a form of the condition. His only failings had been that he was very messy in his rear end. Also, attempts to mate him to his sister and other does met with failure. Members put forward various suggestions as to these conditions.

One suggestion was that his lack of bowel control was caused by deformity of muscles in his anal region, caused by his lack of tail. Another suggestion explaining both conditions was put forward by John Wells, who has conducted his own experiments into breeding tailless rats with specimens that appeared later. He observed that even mild forms of Spina Bifida in humans had adverse effects on the nerve supply to the ano-genital regions. Also, John noted that the actual physical act of mating may be difficult for a tailless buck to achieve correctly.

However, my own plans for mating Manny to other rats produced no results. Unfortunately, he did not survive for very much longer, as he died from kidney failure caused by heat stroke. This was, with hindsight (as is often the case) easily explained. Rats use their tails for heat regulation, as they cannot sweat in our hairless ease. Manny possessed no tail and was unable to regulate his heat, with disastrous results.