THE EXHIBITION MOUSE

Far better twenty healthy mice than eighty suspects

J Wormald

I HAVE had a very bad spell of 'wheezing' in my stud recently. Consequently I have not exhibited at the shows. While I (or anyone else for that matter) would never send an alling mouse to a show, I could not be sure that an apparently healthy specimen was not a carrier.

I think, by ruthless destruction, I have eliminated this dreaded complaint, but the very fact that I was so ruthless has resulted in my stud of blacks being reduced by over fifty per cent.

This has considerably interfered with breeding operations and my chances of a large

operations and my chances of a large choice for Bradford Championship Show. But it is far better to have twenty healthy mice than eighty suspects.

While on the question of illness in mice, I would mention other complaints that appear from time to time to the

from time to time

SORES, usually at the base of the ears occur now and then, and although I consider this to be a blood complaint I do not think it is contagious. Yet little can be done by way

DELAYED PREGNANCIES are not uncommon ELAYED PREGNANCIES are not uncommon. A doe may go over her natural period of gestation of twenty-one days, even to twenty-five or twenty-six, and usually this results in distortion of the body. The young appear to be all on one side. I have never known a doe kindle and rear a litter, having got into this advanced state.

strong healthy doe sometimes suddenly

ously very painful.

There is no cure for this and, as in most complaints, a swift and painless end is the only

plaints, a swift and painless end is the only answer.

BARE PATCHES appear in the fur, usually in summer. This can be due to moths or insect larvae attacking the fur.

This can be treated by dusting with insecticide or sulphur powder, and I have known complete cures in similar cases.

Some does do not make good mothers, even though they are excellent in every other way. They will behave quite naturally and feed their young for a few days then suddenly, for no apparent reason, lose all interest. You find the litter cold and dying in the nest. Nothing is more infuriating. I once lost a more than average Broken in this way. My only suggestion is a milk deficiency, and I never give the doe a second chance.

This is quite different from a maiden doe, which may destroy her first litter and subse-

quently prove a very good mother at the second attempt.

You will invariably find a good breeding doe will chew the hay into small pieces and build a little 'igloo' prior to the birth.

TUMOURS appearing on various parts of the body, the neck and face being the most common. Again, there is nothing you can do about it.

These tumours sometimes appear a few days after kindling, and it is distressing to see a doe struggle to feed the babies with the tumour increasing daily in size. This usually means the loss of doe and litter, but do not count this a great loss, for, should the young survive (perhaps by the use of a foster doe) they may inherit the same defect.

will not say that if your stock is warm and dry, well fed, and regularly cleaned out, that you will not have these complaints, but these factors contribute largely to a

trouble-free mousery.

Never feed oats or bread with any trace of mould and do not let milk go sour in feed

pots in warm weather.

Finally—beware of some of the air purifying sprays for kitchen use. These can be detrimental if used generously. If you can truthfully say you have never known any of the foregoing maladies, then you are indeed a fortunate fancier. May your luck continue.

I have been thinking about an inter-club trophy for some time but the problem until now has been—where does one put it up?—the big shows are already too busy.

TO RE-CREATE SOME RARE VARIETIES

Percy Swift

FIRST of all let me offer my congratulations on the new FUR AND FEATHER and the very interesting articles to suit all tastes.

I always read the Mouse pages and it brings back memories of long ago when I was a Mouse Fancier.

I have read the remarks of a J Wormald re the rare varieties of mice about to become extinct. This is to be regretted as I at one time held a very strong hand in Variegateds.

I obtained my first mice of this variety from Mr Jim Busby, Sheffield, one of the best breeders of mice in his day, and he won all over with variegateds.

Most mouse fanciers at that time were in possession of a book by Dr W M Kerr entitled 'Colour inheritance of Fancy Mice'. This was the Mouse Fanciers' bible. It is now out of print, but I am surprised if Jack has not got a copy. I dare say Mr Dick Ward of Sheffield has a copy. This book gives the formulae of all the breeds of Fancy mice at that time and tells about all their make up.

THE VARIEGATED

I will now attempt to describe the make o of the Variegated as described by Dr Kerr. he Variegated Mouse is a Chinchillated BE white.

If you wish to breed the Variegated, you would use a Black Eyed White Buck x two Chinchilla Does.

Kill all the bucks and mate all the does back to BE White.

back to BE White.

The young from the back cross can be mated (inter se) and should give some Variegated of sorts, you then can build up to the standard as laid down for this variety. All Variegated mice contain one dose of anaemia, and some in the litter will be noticed to be almost lifeless. These die soon after birth, as they are bloodless, and contain a double dose and cannot survive. You can expect in a litter three variegated, two double anaemia which will die, and two self blue and one self black.

Never use a Self buck but the does will be useful if mated to a Variegated.

The only place in a Variegated mouse to

The only place in a Variegated mouse to be devoid of Splashing is between the ears and forehead. This is most difficult to obtain but if you establish your Variegateds you will find that by using the Self doe, Variegated bred, you can improve this.

The Black Eyed White is, a member of the Pied family, and Pied is dominant to Self. In fact it is a marked mouse in disguise. When breeding Variegated never use PE White to improve type as their colour make up is unknown but select within the breed for size. Read this Jack and sort it out. I think you may remember me, a Mouse Fancier around 1939.

the big shows are already too busy. What I have in mind is that each of the regional clubs would nominate four miceone self, one tan, one marked and one AOV. So on the day the judge would simply have four classes to judge—points would be according to entries, ie if seven clubs entered then the first mouse in each section would receive seven points, the second six, etc. The club scoring the highest total with their four mice would be the 'club champions' for a year and would hold the trophy. Bill and I are prepared to put up a trophy if the idea is accepted. Well, what do you think? A leisurely annual general meeting, a day for chatting with distant protagonists (I never did get to have a chat with Angus Ridley at Solihull) and a short, but significant, competition. A GERBIL SOCIETY

On the contrary this little mammal has a very good future on the show bench as well as breeding. As a matter of fact a Mongolian Gerbil Society is at present being formed and a basic standard has been set.

Even now slight but definite mutations are being bred, and with close contact with other breeders through such a society we will undoubtedly achieve the ultimate aim of producing new and more beautiful varieties, as the hamster Fancy have and are still doing.

If any person is interested in the Mongalian Gerbil and think they are able to help the Fancy don't hesitate to write to me. K W SMITH (Mr), acting secretary for the Mongolian Gerbil Society, 12/68a Peters Avenue, London Colney, St Albans, Herts.

WITH reference to the report by Mary Dobson on the Mongolian Gerbil at Worcester on the Exhibition Mouse page in FUR AND FEATHER of November 5. She states that the Gerbil has no show potential.

In time the standard will be amended as we progress, but nevertheless we now have something to work on.

To re-create the Fox mouse, a Chinchilla

To re-create the Fox mouse, a Chinchilla buck is used.

Does should be black Tans with as pale tan as it is possible to get. Feet must be sound in all respects, as this was also the biggest fault in Foxes.

Don't forget this. Where tan exists, this will be white in the Fox, therefore it is important to pick your Tan does which excel in markings.

Make sure you select the Tans which are pale in tan, then the chinchillation will have less to do to cancel the tan out. You may produce some good Foxes in the first cross back to Chin with the does from the first mating.

back to Chin with the does from the first mating.

From the first litter kill all the bucks and mate the does back to Chin.

The faults to look for in Foxes are a tan tinge on the line of demarcation along the body, but selection should eradicate this; also feet are very light, so select Tan does with exceptionally good feet.

To create the blue, the same remarks apply but choose the deepest shade of blue as the chinchillation tends to pale the top colour a little.

The same applies to chocolate Fox, but the change of the colour all the colour and the chinchillation tends to start you off.

e same applies to chocolate Fox, but chocolate Tan does to start you off.

MICE FOR THE HOBBYIST, EXHIBITOR AND SCIENTIST. By J Wood. A practical guide to their breeding, general management and exhibiting. Price 2s 10d post paid.

CLASHING, RAIL FARES, ANNUAL MEETINGS

Tony Cooke's Mice-ellany

IT HAS been some time now since I found time to write one of my epistles for FUR AND FEATHER but somehow the year seems to have crept by and there has been so much to do.

However, I have been laid up at home with bronchitis and asthma recently and this has at last provided me with sufficient free time to get some of my thoughts down onto

paper.

Where do we start? Carlisle show secretary bemoans the lack of entries at their cup show. I should have thought the reason was pretty obvious—with shows at Guildford, Greenwich and Airedale during the previous fortnight and the Annual the week after. Which all comes down to the point of my article on January 29 in which I said that if we as a fancy do not plan our calender then everyone will suffer.

I already know of one Saturday next September which is double booked and doubtless there will be the usual glut of open shown around 'Annual' time and famine at other times of the year.

But, we have to book our hall twelve

other times of the year.

But, we have to book our hall twelve months in advance, you say. My answer is that the NMC should ask for nominations for the 1972 cup shows within the next couple of months and have the locations decided upon by the time of the Bradford Championship show. Then, at that show each of the regional clubs should provide the Executive Committee with a list of the number of open shows it wishes to stage with an indication of their approximate dates. The EC should then plan the 1972 calendar with shows evenly spaced both in time and location, and this could all be decided by about March-April 1971.

If our Fancy is to survive we just cannot

If our Fancy is to survive we just cannot afford to have two open shows on the same day—or five shows in twenty-two days as happened this September.

Mr Marriott (who I would like to thank, along with Harry Heywood and one or two others from the 'north' for the unfailing support to the southern shows) raises the question of increasing rail costs.

This is a problem which is not being ignored. Tim Heath started the ball rolling with his ideas on lightweight maxeys and travelling boxes. During this summer I have been following up some of Tim's ideas regarding fibreglass and this will be the

Let me however give a brief report and say that whereas a year ago we could only send two mice to a show and remain in British Rail's bottom price (up to 8lb weight) we are now regularly sending four mice for the lowest price and can achieve six Maxeys and travelling box under 8lb total weight.

Looking through the rule book at some of our standards (I wonder how many judges have read the actual standards recently?. There are a number of inconsistencies. Why do most varieties receive fifteen points for condition and yet some (eg Chinchilla, Dutch, Argente) receive only ten?

Surely all varieties should be judged

Surely all varieties should be judged equally according to the 'general standard of excellence' which starts the standards on

page 9?

Also, the Silver Fox standard makes no direct reference whatever to feet colour—although all judges treat white feet as a fault. Now in this respect I'm sure that all would agree that it is the standard which is lacking and that it should be similarly phrased to that of the tans. As I understand that a reprint of the rule book is imminent perhaps the Executive Committee could authorise a modification pending formal ratification at next year's annual general meeting.

Talking of annual general meetings I would Talking of annual general meetings I would like to question whether it is right or fair to hold the annual and the annual general meeting at the same time. The annual invariably has a very large entry and this often means that judging has to go on well into the day—by which time many people are wanting to get off home.

If the annual general meeting starts before the end of judging then our main stalwarts, the judges and stewards for the annual, do not get a say (or vote) in many of the topics. Also because of the necessity of a hall for the annual general meeting it means that agricultural shows do not get a chance at holding the annual.

I would like to suggest that the two functions are split up and that the annual general meeting is held at a non-show venue, in combination with a social day. Or better still, let us have an inter-club competition only in conjunction with the annual general

LAST 1970 SHOW OF CENTRAL ENGLAND CLUB

Fred Beach

A DAMP start to the day, was soon dismissed when fanciers entered the show hall at Knowle, for the start of the annual trophy show. Refreshments were soon provided by the ladies for those coming long distances.

We were sorry once more to have to turn down late entries, brought by hand after the judging had started. This makes the point of everyone making sure that their entries are booked in by the Thursday or the Friday morning at latest. It may not be known to some fanciers that the books are made up on the Friday evening and judging slips prepared, so as to enable the judges to get on at the hour appointed. So please fanciers get your entries in as requested by the show secretaries of the various clubs.

An entry of 752 was well up on the National average for open shows this year and being the last show for 1970, was very pleasing to all concerned.

Rats went down well with thirty-two entries and about eighteen letters received in response to the message to Ratters and Gerbilists printed in FUR AND FEATHER November 19 page 1101.

The feeling is strongly in favour of going ahead with these delightful animals. Further news of thiss will be printed in FUR AND FEATHER in due course. If you have any interesting articles about rats or gerbils, please let the editor have it. I know he will be more than pleased to make use of same in future issues.

Now back to the annual trophy show (after all this was a mouse show). Best in show, best Self and best Tan, went to Tony Jones.

Our congrafulations to him expecially as the wound and best Self and best Tan, went to Tony Jones.

We should not be here at all without our provided to the start of the same and the permitted the provided and house to support the same and the permitted the same and the permitted than the provided the provided the provided that the p

all this was a mouse show). Best in show, best Self and best Tan, went to Tony Jones. Our congratulations to him, especially as the entries were last minute, but this enabled Tony to help Janine with the table for a while. I don't know whether he succeeded in getting his photo, but I hope so.

his photo, but I hope so.
Best other age went to Jack Hartley with
best AOV, best doe and best members CEMC.
President's Trophy for most points, Tony
Kettle; best Dutch and best Marked trophies
to R E Cound; best Unstandardised to Eric
Jukes; best stud buck to Ernie Higgs; best
ladies to Mrs Mack; best juvenile to Jan

in a Maxey and the mouse had pushed through. This was a young Chinchilla—perhaps the owners also are now aware of this.

On November 21 at Knowle we had two boxes with loose mice in the same loose Maxey and another fancier's cage had a badly bent wire front. You really must take more care with your stock.

Furthermore some boxes are not suitable to rail livestock in, especially cardboard and those knocked up from various bits and pieces. A good traveller costs very little and I will willingly provide same to order.

As it is the end of the show year, I would like to say thank you to the South West Fanciers, who come whatever the weather and are always there at their jobs, Alan Reice (Bristol), Brian Bainton (Wales), Neil Wallace (Cheltenham) and not forgetting the two most far, who never miss sending railstock, Miss B Hooper from Cornwall and Stephen Maynard from Somerset.

We should not be here at all without our ladies, Joan, Edna, Betty and Marie, all in the kitchen and they keep us going with the tea and all join in a pleasant chat, thanks ladies.

In closing this report may we from the

tea and all Join in a pleasant Char, manualides.

In closing this report may we from the Central England Mouse Club (Joan, Fred, Janine and helpers), wish all our friends in the Fancy, from near and far, a very Happy Christmas and a prosperous New Year, we look forward to meeting again in 1971, both at Knowle and around the many shows.

LONDON REPORT continued

Mr H Jowett's classes

It gave me the greatest of pleasure when I was asked to judge the Self section at the London Championship show.

London Championship show.

I travelled down to London during the night by car with Jack Hartley.

The stock in my section were good. The Whites had thin undercolour while the Chams were mealy and white tail roots and the Blacks were inclined to be a bit rusty on undercolour and one or two white hairs in coat. Watch out for these points.

Best Self and my nomination for best in show was a beautiful Red doe adult shown by Mr Hartley. Best eight weeks was a lovely Silver doe shown by Mr Jones. These were two beautiful mice and a credit to their owners. My congratulations.

Many thanks to my two stewards Mr Picker-ing and Mr Squibb who did a grand job all day and also to all concerned who made it a successful show with a grand total of entries 1013.

It was nice to have a chat after judging with all our Southern fanciers and fanciers from other parts of the country and to spend a very enjoyable day with you all.

from other parts of the country and to spend a very enjoyable day with you all.

WHITE Ad 12: 1 Reice, a lovely typy doe, best colour in class, very sound, good head and tail set, very nice even under, stood out for condition 2 Halletts, another beautiful doe again sound colour and in tip top condition, but just fails on under to winner 3 Reice, we have another doe again not the colour of leaders and slight moult on back and again thin under 8 wk 6: 1 Cooke, a beautiful little doe, pure colour, good head and tail set, excellent under, stood out for condition 2 Halletts, another beautiful doe, sound colour, good head and tail set, winner just had it on under and finish, very close 3 Jones, a nice doe lovely colour but not got the tail set of leaders, fails also on under SILVER or CREAM Ad 4: 1 2 Jones, Cream doe, best colour in class, good head, strong tail set, lovely type, nice even under, in first class condition 2 Cream doe, could be better colour, nice type, good head and tail set, not the finish of leader 3 Heath, Cream doe, fails colour and could be better under 8 wks 5: 1 2 Jones, a beautiful Silver doe, good all round, stood out for top colour, lovely even under, lovely broad head, strong tail

set, excellent type and in tip top condition.
This was my best 8 weeks. A good win 2 lovely Cream doe, lovely top colour, good head, nice tail set, nice even under, it was any lovely Cream doe, lovely top colour, good head, nice tail set, nice were under, it was any lovely condition, and in lovely condition but fails thin under the colour, good beautiful top colour and very nice even under, lovely head and tail set, excellent type, first class condition, a good win 2 Bakes, a lovely Cham buck, nice shade of top colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour, good broad head, nice tail set, not an increase with the colour and very set of the Blacks, a buck, lovely top colour, and the colour, good feet, lovely top colour and increase with the colour, good feet, lovely top colour and increase with the colour, good feet, lovely top colour and increase with the colour and very set of the Blacks, a buck, lovely top colour and increase with the colour and very ween with the colour and type ween with the colour and very ween with the colour an

nice head and lovely type, stood out for condition 2 Jones, a nice Dove doe, best top colour of the Doves, nice even under, nice type and condition, light tail root spoilt it, hard lines 3 Wakeling, a red doe, not the colour of leader, lacks fire, nice under, lovely condition AC SELF Chall ad 53: 1 Hartley, Red 2 Reice, White 3 Jones, Cream r Horne, Fawn 8 wks 38: 1 Jones, Silver 2 Hartley Red 3 Watson, Cham r Cooke, White. H JOWETT

AIREDALE continued

Mr B Shield's classes

Another Airedale Show on November 7 and that is about all one can say about it. John Kellet had his usual management and catering team on their toes and everything was up to its usual standard—the best of everything.

I had the Tans to sort out and enjoyed myself. I was disappointed with the blacks and chocs, they seem to be in the doldrums. Best Tan was Ernie Higgs's dove buck which was in the same position at Carlisle and the Annual.

Best eight weeks Tan, Tony Kettle's dove which was best in show at London.

and the Annual.

Best eight weeks Tan, Tony Kettle's dove which was best in show at London.

TAN BLACK or CHOC Ad 7: 1 Lindsay, a nice choc buck, very nice type 2 Heywood, black buck, not the fettle or type of winner 3 Longbottom, choc buck, poor feet r Webster, nice mouse but fat 8 wk 6: 1 Holmlea, black, best all round, well up to age 2 4 Higgs, black, a genuine baby, very promising 4 another black with bad feet 3 Longbottom, choc, beaten feet and tan BLUE Ad 6: This class of blues really pleased me, they show a wonderful advance on a few years ago 1 3 Holmlea, buck with really good tan for a blue 3 a doe, not too far behind 2 Heywood, a nice doe but rather rough 4 Cooper, poor tan 8 wk 8: 1 2 3 Holmlea, a nice team, probably all same litter 4 Webster, buck, rather poor tan AOC Ad 10: 1 Higgs, dove buck, mentioned above 2 Marriott, cham doe, what one expects from this stud but up against an outstanding mouse 3 4 Holmlea, silver buck followed by a cham buck, not by any means disgraced, just beaten by better all round mice 8 wk 9: 1 Holmlea, the dove buck which was best in show at London 2 Espley, a silver doe, not too far behind 3 Heywood, a silver buck r Higgs, a dove buck, four tip-top mice and a credit to their owners AC Chall ad 19: 1 Higgs, dove, best Tan 2 Marriott, cham doe 3 Holmlea, silver buck 4 Heywood, black buck 8 wk 18: 1 2 4 Holmlea 3 Espley AV Stud buck 11: 1 Higgs, the dove Tan 2 Baker, Cham, grand all round 3 Heap, Cream, a real beef type but starting to show his age 4 Watson, another useful Cham JUVE-NILE Ad 13: 1 Watson, a very good Cham doe 2 Baker, Cham buck, beaten condition 3 Watson, Cham buck, rather rough 4 Pearce; a very good class and some good mice went without cards 8 wk 16: 1 Espley, a very nice agouti Dutch 2 Watson, Cham doe 3 Beach, Choc doe, very pleasing 4 Pearce, Red doe. Both Juvenile classes were as good as any other class 1 handled, the stock was in good condition. Let's hope these people stay in the Fancy, they will most surely be a credit to it. BILL SHIELD

How should we mate Brokens?

PERCY ASHLEY wrote that this was a question filled with dynamite as there are so many ideas on how it should be accomplished. He followed the following methods.

so many ideas on how it should be accomplished. He followed the following methods. First make sure every mouse has a good clear nose spot. This is essential. Enough trouble comes from breeding from two animals with good nose spots without using one without a nose spot. It can be done but the only good practice is to breed from mice with nose spots.

After this the main consideration is to make sure to balance mice in mating. This means that if one mouse is short of spots on one side, do not mate it to another that is also short of spots on the same side. Also keep clear of the ones with a patch in the rear like a Dutch saddle. Do not use these in any circumstances.

Try to use stock with no fewer than eight or if possible ten or more spots, well spread out over the body. If you get one with spots on the belly so much the better. After the first litter, select from each the ones which balance with the others. The best way is to have a good selection of bucks and then balance the does to them. In a few generations good quality mice should be appearing fairly regularly, but you must

bucks and then balance the does to them.

In a few generations good quality mice should be appearing fairly regularly, but you must press onwards. It is impossible to stay still in breeding. One either goes forward or backwards.

Apart from markings in Brokens, colour, size and the usual minor points all contribute to making a good specimen. In the past there have been many arguments about the spots, some breeders claim that these should be of varying sizes; others contend they should be equal in size. Some want patches; others circular spots.

If they are clearly defined, good coloured spots, free from brindling, they will do for me (said Percy Ashley). I think that if the spots or patches are all of one size the effect is much better than if they are different sizes.

Do not use mice in breeding that contain evenly placed spots. In breeding Brokens one must be ruthless in culling. Only rear the young that conform to the standard.

NORTHERN CHIN MEN MAKE MERRY

(continued from page 1131)

(continued from page 1131)

A Scott, Mr and Mrs E Smith, Mr and Mrs J K Ward and Roger, Mr and Mrs N Shone, Mr and Mrs F Hutchinson, Mr and Mrs M Appleyard, Mr and Mrs Parmenter, Mr and Mrs C Holmes, Mr G R Hirst, Mr and Mrs J Tose, Mr and Mrs Guy, Mr and Mrs R Thornton and Jill, Mr and Mrs R Thornton and Jill, Mr and Mrs C H B Simpson, Mr and Mrs T Aldworth, Mr and Mrs N A Watson, Mr and Mrs B Gallagher, Mr and Mrs B Dakin, Mr and Mrs G Ivers, Mr and Mrs B Dakin, Mr and Mrs N Chadwick, Mr N Weir, Mr and Mrs E Parker, Mr C Punchard, Mr and Mrs D Wade, Mr F Brasier, Mr P Brasier, Mr and Mrs Ratcliffe, Mr P Ratcliffe. Ratcliffe.

The club chairman, Mr A Scott, in a short speech welcomed everyone present, and introduced the National Chinchilla Club president Mr Edward Smith who was the Northern Chinchilla Club's first secretary.

Northern Chinchilla Club's first secretary.

Mr Smith gave an interesting talk on the history of the club since its formation thirty years ago, and described the method of judging chinchillas over the years. He then proceeded to tell a few amusing after dinner tales, and proposed a toast to the Northern Chinchilla Club which was seconded by Mr J K Ward.

The tables were the guickly elected and

The tables were then quickly cleared and the next item was the presentation of the show awards to the 1970 winners.

In the absence of the president, this pleasing ceremony was performed by Mr Edward Smith.

Although there were a few cups missing, Although there were a rew cups inisping, those on view made an imposing array. They included two new cups, the Albert Cookson Memorial Trophy, and the Alfred Butterfield Memorial Cup which had been given in memory of our two late members.

The winners of best in show at the club's three stock shows took most of the trophies, namely B Gallagher, F Brasier and E Smith, Edward had to present himself with one

Edward had to present himself with one or two.

Other winners were T Aldworth, D Wade, J T Busby and J R Scurr.

After the presentation it was on with the fun and games, and everyone seemed to be having a great time. The biggest laugh of the evening was in a class to decide the best pair of men's legs in the room. J K WARD

METHODS FOR THE PRACTICAL BREEDER

PART 5 - R G SILSON

EXPERIMENTS have shown that biochemical processes usually work by a long series of steps. Each step is small but the total of all steps gives the required end result. This method has been shown to be far more efficient than those used in human chemical factories which tend to try to make chemicals in as few steps as possible. In cells gene A will cause chemical A to be made, gene B will cause chemical A to be changed to chemical B, gene C will control the next step to give chemical C and so on. The chain of steps would thus be:

A-B-C-D-E-F etc.

At some points a biochemical would be needed for several purposes. Thus gene D may change biochemical C into biochemical D while gene M changes biochemical C into biochemical M. All sorts of combinations of this type may occur, some of which are suggested in the diagram.

Since all genes were originally the product of chance mutations it is most unlikely that a single gene will make a precise job of controlling a particular step in a biochemical production line. There is also the fact that natural and artificial selection will have changing needs and what is the correct amount under one set of conditions may be wrong under others.

Nature seems to have solved this problem by using several genes to control each step. Each of these genes may have only a small effect but, in various combinations, their effects can add and subtract to give something close to the re-quired answer. The simple diagram above would then become something like this:

A1 B1 C1 D1 E1 F1 A2—B2—C2—D2—E2—F2 A3 B3 C3 D3 E3 F3 etc

Suppose that, as a simple example, six loci controlled one step production chain. If each locus had only two alleles valued at 0 and 1 we could show the six loci as

01 01 01 01 01 01 From these six loci it is possible

Diagram of part of a possible production line for biochemicals inside a cell. Each step would be controlled by one or more genes.

to obtain a range of additive totals ranging from 0 to 12, eg:

00 00 00 00 00 00 11 11 11 11 11 11

Somewhat surprisingly there are 4 096 different combinations possible, with two alleles at each of six loci, to make various combinations between 0 and 12 as above, if linkage is allowed for. There are as many as 924 different ways of obtaining a score of 6, and only 20 of these can be completely homozygous, with a potential for breeding true. These figures are for only ONE set of loci controlling one step amongst the many thousands in each cell. This is the problem that faces the breeder. It looks extremely difficult but can be quite straightforward. It all depends on the method used.

The above is a simple example but with a large number of loci and many alleles possible at each the range of control could be extremely wide giving perhaps in-creased problems but also the possibility of extremes of variation never previously bred.

Each set of loci controls one step in a biochemical production line. Later steps of the line may require more chemical than has been produced. Also where a chain forks into two or more legs the biochemical has to be shared between them all. More for one leg will mean less for the other and vice-versa. Lack of possible alleles will give an

unbalanced combination and cause a biochemical bottleneck, restricting one or other aspect of the individual's growth or behaviour in the widest sense. Most behaviour is controlled by chemicals, such as those known as hormones. Be-haviour includes such things as fertility and breeding cycles which are the foundation of any breeding

programme.
What is the breeder trying to do with these complex interactions?
Whilst he may appear to be selecting for such things as size, fertility, colour etc he is actually selecting for increased or decreased amounts of a wide range of biochemicals with the aim of achieving a new balance that will give him the type of individual he

requires.

In the past the breeder has been deceived since almost any breeding system will give an outstanding individual now and again especially if enough breeders use the system and enough progeny are bred.
The problem however is not to breed just one good individual but a whole line of them. A line that will continue to improve in average quality and to breed more and more outstanding individuals that will themselves repeat the result generation after generation. Later chapters will show how

such progress may be made and explain the pitfalls and problems. (to be continued)

@ R G Silson

RANCH CHINCHILLAS

'Thoroughly spoilt at the London show'

They'll never be the same again...all that petting and handling will quite surely go their heads! It was indeed a pleasure to see so many people handling our animals so expertly, so easily. I realised at once that the difference was that so many of these visitors to our stand at the London Pride Show were animal owners or animal lovers to start with...so the introduction to handling a new small animal was made much easier for them. Like Barbara Griggs in the Daily Express write up, I, too, was much impressed with the different types of rabbit, cavy, mouse, gerbil and others on view.

I was only able to attend the show on the Saturday (full three-day ATS report is on the rabbit page) but I can say that I really enjoyed meeting the Rabbit Fancy and their friends.

her twinkling brightly over her plans for the next show!

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Chatting with Herbert Dyson and his wife reminded me of the many chinchilla shows where we have seen Mr Dyson in the past. It was really like old times to be talking to Marjorie Ryder again and discussing the new fortnightly FUR AND FEATHER.

The show was kept hopping by the trendy Pat Gaskin, maxily gowned for the occasion and when I looked around I wondered how she and Eric had managed to co-ordinate so much. At the end of the show I went over to thank her for everything and I found

to the stage to locate their parents. I found Arthur's cookie cache at the back of the stand quite useful for the small fry!

I went to introduce Dr Richardson, an American visitor at the show, to Arthur with the words 'Dr Richardson, Californian' and before I knew it Arthur was reeling forth his thoughts on the Californian rabbits, I had to tell him that this was a real, human inhabitant of the sunny State of California.

I ended up on the Saturday afternoon absolutely exhausted but utterly refreshed, that is, tired physically but really refreshed to see so much enthusiasm, so much friendliness, so many busy workers, and such excellent spirits abounding everywhere. 'London Pride' was a well-chosen name for the show. I look forward to next year's show. SEBERT SWEENEY, Ranch Chinchilla breeder

WEST MIDI AND

WEST MIDLAND DINNER-DANCE

THE tenth annual dinner and dance of the West Midlands Region of CFBA was held at The Spanish Lounge, Habberley on Thursday November 12. The 110 ranch chinchilla breeders and friends present had a really wonderful time.

The change of venue was a success as owing to its accessibility we had a bigger attendance than usual. We had wondered if we should go ahead with our arrangements this year, owing to the gradually dwindling numbers of chinchilla breeders, but it succeeded beyond our hopes.

A great pleasure was the attendance of Ralph and Rita Pearsall who have been sorely missed from our chinchilla activities of late, let's hope they will now be regulars at coming events. The Walsall branch came in strength, with chairman Sid Scott and his wife (treasurer) in the seat of honour. National chairman Frank Emery and his family were also there.

The dance was a very gay affair with many prizes awarded, and the merrymaking reluctantly came to an end at 1 am. So many people have asked to come again that we must seriously consider planning our 11th effort.

The hard work of arranging the evening and carrying out all the organisation had

11th effort.

The hard work of arranging the evening and carrying out all the organisation had been done by Chris and Pauline Williams, two very hard working people. Chris is secretary for the West Midlands Region Walsall

THE annual baby show was held on Wednesday, October 28, 1970, at the home of Mr and Mrs Warner, Barnfield, Shaw Barn Lane, Wetherby. In spite of the reduced number of breeders thirty-five young animals were divided into four classes and competently judged by Frank Gill. The Ingledew Cup this year was won by Fred Ingledew with the best baby in the show.

Before refreshments were served, the branch sorted out and chose adult as well as young animals to represent their team at the inter-branch competition on November 8.

8.
Females 3-5 mth: 1 2 Ingledew 3 Wells
Males 3-5 mth: 1 2 Warner 3 Ingledew hc
Rumley (2) Females 5-7 mth: 1 3 hc Ingledew 2 Warner Males 5-7 mth: 1 2 hc Warner
3 Ingledew Best baby 3-5 mth: Warner res
Warner 5-7 mth: Ingledew res Warner; best
in show Ingledew, res Warner.

CPMA and

AS MANY British chinchilla breeders will already know, Dick Kirkup, chairman of CPMA has found it necessary to resign. It was with great regret that his resignation was accepted by the board. I am sure that most breeders fully appreciate the efforts that Dick Kirkup made on their behalf over the past ten years.

Mrs Milton, CPMA's secretary/director, also found it necessary, through ill health, to resign in June. All breeders, I am sure will be pleased to hear that she is now home again and improving in health. So much so, in fact, that she is able to take an interest and assist Bill Pee, who has taken over, provisionally, the running of CPMA.

George Hastings, the last of the original (continued on page 1161)

POUBLE X CHINCHILLA PELLETS Formulated by W R Muir, BSc, Consultant Animal Nutritionist. THE MOST SUCCESSFUL AND WIDELY USED CHINCHILLA FEED IN EUROPE.

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Obituary

W WATMOUGH

WILLIAM ERROLL GLANVILLE WATMOUGH died, aged 80, on November 18, at the Duchy Nursing Home, Harrogate, where he had been for a few days following a short illness. Mr and Mrs Watmough had been living at the Yorkshire Suite, Crown Hotel, Harrogate, since

they left Lintonholme, North Rigton, a year ago. Mr Watmough was the son of Catherine and John Edwin Watmough, who founded the printing and publishing business of Watmoughs Limited in 1886 and two years later brought out FUR AND FEATHER.

It was to this family printing business that teen-age W

Watmough came when he left Woodhouse Grove School in 1907. He showed early signs of ability in manage-ment and journalism and before the first world war had become Managing Director of the Company. When Watmoughs became a public company in 1965

he continued as Deputy Chairman to his son John.
He served throughout the 1914-18 war in East Africa and was a member of the Royal Observer Corps during the second world war. Through these associations he became intimately connected in later life with the

British Legion.

He was married to Elsle Agnes Dixon at Linton Parish Church on June 11, 1925. They were ideally suited and

shared largely in each other's interests.

Watmough had a life-long passion for out-of-door pursuits and for the breeding of exhibition animals. In boyhood days it was rabbits and cavies and there are prominent advertisements in FUR AND FEATHER of that time announcing that the young W Watmough would have to cut down his stock because of the impending end of school holidays.

Later he became a partner with his father in the famous Fairfield stud of English and African Owl pigeons. He bred Modenas with outstanding success and became one of the country's best all-round judges. He was chairman of the British Pigeon Show Society and with his personal secretary, Marjorie Ryder, and some close associates in the pigeon Fancy, was responsible up to his death for the running of the Harrogate Championship show.

Budgerigars also claimed his allegience and with them he achieved the same success both as a breeder judge. Mrs Watmough shared, and indeed, often inspired his progress and their stud of Lintonholme budgerigars was in fact always in her name.

In Watmough was twice president of the Budgerigar Society, the chairman for over twenty-one years and was given the signal honour of being made the only life member of the Budgerigar Society Council.

He was a keen angler for salmon and trout and followed the Airedale Beagles almost up to the time of his death.

up to the time of his death.

Some of his best work for the Fancy came from his very facile pen. He was a good journalist. His valuable contributions to the pigeon section of FUR AND FEATHER must one day be brought together in book form. He wrote many books on livestock, including 'Inbreeding', 'Pigeons for Novices', and 'Fancy Pigeons'. He edited and compiled 'Pigeons of Today' and was the author of the standard work on budgerigars, 'The Cult of the Budgerigar'.

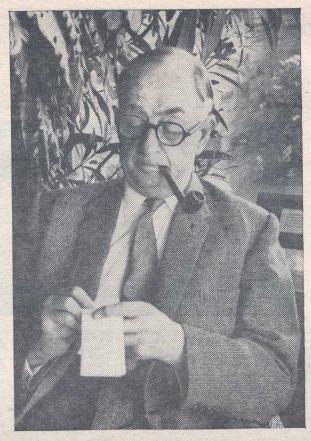
gerigars, 'The Cult of the Budgerigar'. is two books of reminiscences, 'I Look Back' and 'I Look Back Again' ('written for fun' as he put it) are full of the sort or incidents and racy anecdotes which one always associated with him. Proceeds from the books went to the Bradford Flower Fund Homes and to the British Cancer Research Campaign.

Research Campaign.

He was held in high regard in the printing trade and was a Livery Man of the Worshipful Company of Stationers and Newspaper Makers and a Freeman of the City of London. He was a former member of the Bradford Rotary Club and at the time of his death a member of the Rotary Club of Idle and Greengates.

He leaves a widow, a son, Mr John Erroll Watmough, a daughter, Mrs Catherine Jean Baxter, and seven grandchildren.

There was a small family cremation service at the Harrogate Crematorium on Friday, November 20, and a memorial service at Bradford Cathedral on Friday, November 27.



Tributes

HE GAVE A MEANING TO LIVING

ing and always lively. He did nothing by halves.

He not only loved country life and open air sports; he took part in them. Angling and beagling were passions rather than pastimes. His hobbies were all centred on living creatures—his boyhood cavies, his lifelong pigeons, his budgerigars. He pursued them with infectious enthusiasm.

It was the same in business. Though he upheld old and proved procedures and believed firmly in the value of tradition, his mind was wide open for invigorating ideas. He shared with his son and other colleagues on the Watmough Boards a perpetually-youthful zest for progress.

This characteristic liveliness ran through all he wrote and all he said. He was a persuasive author and a compulsive conversationalist. He loved to tell a story and to hear one. A bit of gossip never came amiss. He was human. And he was dependable.

I knew him for the best part of a lifetime

was human. And he was dependable.

I knew him for the best part of a lifetime and benefitted greatly from his guidance. His counsels were always wise. He had staunch principles and noble ideals; he matched them with an integrity of the same high standard. He was a great family man.

Above all I valued his friendship. At the end of a long period I am conscious that he was one of the finest men I shall ever know.

1925 Mr Watmough-very much on the In 1925 Mr Watmough—very much on the whole a man's man—married a lovely girl from the Yorkshire dales. Those of us who have visited the old Lintonholmes or the very similar Yorkshire Suite at the Crown in Harrogate will know what a perfect partnership it has been. They will know too something of the sorrow which Elsie Watmough must now feel.

But there will be the solace of the memory of a devoted husband, of a treasured father and grandfather, and of a man who so loved life that he filled it not only with activity but with goodness and happiness.

I am sad at his death: I share joy in his living. HD whole a man's man—maried a lovely girl from the Yorkshire dales. Those of us who have visited the old Lintonholmes or the very similar Yorkshire Suite at the Crown in Harrogate will know what a perfect partnership it has been. They will know too something of the sorrow which Elsie Watmough must now feel.

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From Arnold and Mildred

Sanderson

It must be just 50 years since I first heard the name of the late W Watmough and then not in connection with rabbits but in the inconnection with rabbits but in the inconnection in connection with rabbits but in the inconnection in connection with rabbits but in the inconnection in connection with rabbits but in the inconnection in the end the social that evening the members present paid silent tribute to his memory.

I first met Bill Watmough fifty years ago when he wanted Watmoughs Limited to possess pens and staging so that they could quote agricultural shows a comprehensive figure for doing their show in its entirety, ie the provision of all penning and staging for the dogs, poultry, pigeons and rabbits etc, the first head the plant was a comprehensive figure for doing their show in its entirety, ie the provision of all penning and staging of the days poultry, pigeons and rabbits etc.

The idea was good and we set out under the title of Show Service Ltd. We were supprove a successful amalgamation, and in the end the plant was taken over by Fred Wood-gate who ran the enterprise more successfully.

It was in the old-show service days that be storing pens and staging at Selby so that (continued on page 1152)

MY abiding impression of Mr Watmough is fancy pigeon world with which he was to of a man who loved life. It was something he had inherited and which he has abundantly passed on.

Add to this a keen interest in budgies, other birds and nature in its many aspects, country life, fishing and beaging and one has an idea of some of the facets of his character.

thas an idea of some of the facets of his character.

He was a good business man and under his guidance Watmoughs Limited grew and prospered yet despite all changes he retained a constant interest in FUR AND FEATHER, the initial hub of the firm. Many similar type papers have been mooted and some even published though they have all fallen by the wayside but thanks to Bill Watmough and his associates we fanciers have always had our journal. It is good to know that the family spirit at Watmoughs Limited is as strong as ever.

I must have known Mr Watmough personally for the best part of thirty years and during the whole of this time I found him ever courteous, kind and very likeable.

In his passing we have lost a great fancier, a friend, a gentleman of the old school whom we shall sadly miss but whom we shall always remember and feel all the richer for having known.

We, and all members of the National English Rabbit Club offer our deepest sympathy.

We, and all members of the National English Rabbit Club, offer our deepest sympathy to his widow and family in their great loss, ARNOLD and MILDRED SANDERSON lish

From James Read

THE news of the passing of Mr W E G (Bill) Watmough came as a shock to the assembled fanciers at the Dutch Club show at Huddersfield, and at the social that evening the members present paid silent tribute to his

ARDENT WORKER FOR THE FANCY

John L Sears

ALL Pigeon fanciers will be deeply shocked by the very sad news, of the death of Mr W

by the very sad news, of the death of Mr W Watmough.

Bill, the name by which so many of us have always known him, was a pillar of the Fancy, a man for whom we all had the greatest respect.

or the Fancy, a man for whom we are had the greatest respect.

He was not only a very great authority on all breeds of pigeons, a clever breeder and a most ardent worker for the Fancy but he was also an able writer, not only in his books but always too in his articles, which will be so sadly missed now.

His father had been a very well known fancier and it is not often, that the interest passes from father to son and although Jack may not have inherited his father's love of pigeons, I am sure that he will always be willing to help the Fancy in whatever way he can.

willing to help the Fancy in whatever way he can.

My first meeting with Bill Watmough was when he and his father had a wonderful stud of African Owls and these had been preceded by an equally fine one of English Owls. I was delighted when he approached me when he wished to start in Modenas and within a very short time, his birds were winning at the classic shows.

We all have to thank him for the running and organisation of Harrogate show. This started as a new venture and under Bill's leadership and the able help of Marjorie Ryder, has grown to be the largest Fancy pigeon show in England.

As most of us will know, Bill was also a very able breeder of budgerigars and had one of the finest studs. He was very keen on beagling and had been an ardent trout fisherman all his life. We spent many happy days on the Test when he was my guest.

We all wish to extend to Mrs Watmough our deepest sympathy. Nobody could have had a more devoted and charming wife. I have always looked upon Elsie and Bill as the ideal happy marriage. JOHN L SEARS

From W Machin

I'was shocked when I read of the death of Mr Watmough. We had known each other for at least fifty years and were always pleased to meet each other.

What a blow for Harrogate show.

By his passing the Fancy has lost a friend who will never be replaced. I dread to think what will happen to Pigeon notes now he has gone, as he often kept the flag flying alone.

To Mrs Watmough and family, my wife and I offer deepest sympathy. W MACHIN

From C Sharpe Magee

From C Sharpe Magee
THE pigeon Fancy appears to be going through a rather sorrowful period at present in the loss through death of several great fanciers whom we cannot afford to lose.

Only recently I paid tribute to the memory of Cyril Balchin

Now there is the untimely death of one of my sincerest friends Mr W Watmough.

Bill, as he was known by his numerous friends, has done so much for the pigeon Fancy. He has left a void which will be very difficult to fill.

I had known Bill for approximately half a century and we had many similar views not only on pigeons generally but other subjects as well. He was a very good writer like his father before him and his business acumen has contributed greatly to the printing and publishing business which bears the family name.

publishing business which bears the family name.

As an allround judge of Fancy pigeons his services were very often called upon. He was on the council of the Great Yorkshire show and chairman of the committee responsible for the pigeon section.

To say that he will be greatly missed is a gross understatement.

I shall miss his telephone calls also his companionship at many shows we attended together. With the exception of the last Royal Dairy show we always stayed together at the same hotel which Bill always booked well in advance.

Now he has passed on I feel sure, should

well in advance.

Now he has passed on I feel sure, should there be pigeons shows in the next world his services will be in great demand. He was always a great family man and to his sorrowing wife Elsie, son Jack and daughter Jean the sympathy of all pigeon fanciers goes in their irreparable loss. CHARLES SHARPE MAGEE

From Marjorie Butcher

It was with regret that I learnt of the death of W Watmough. To me he was both friend and counsellor during my four years as secretary of the Harrogate Championship pigeon show. I shall greatly miss him. To Mrs Watmough and his family I extend my sincere condolences, MARJORIE BUTCHER