Some of The Rules for breeding Sebrights

These very intelligent birds were created some 200 years ago. Over the years Sebrights have developed some of their own ways of doing things, but little has changed in the standards over the years or in the different countries where they are shown. I have written these Rules to help anyone who breeds Sebrights and particularly new comers. A major part of keeping and breeding poultry is to improve the quality each year, and the excitement of having culls that you would have loved to have as breeders some three years ago.

Throughout these Rules, I have referred to dominant genes and recessive genes following the rules or principles of Mendel. Genes come in pairs and for any trait it is usually the dominant genes’ effect that we see and the recessive genes’ effect is
invisible. However in the absence of a dominant gene there will only be recessive genes and they will control what we see. In these notes I have not attempted to label these genes with letters, does that really matter when selecting birds for mating? You can tell if a feature like a short back is dominant if both the mated male and female have short backs and the progeny are a mixture of both short and long backs then the long back is recessive. The importance of this is that if a trait is a recessive gene then when it is established in a line of birds for good or bad it is locked into the line and carried from one generation to the next generation. For example, ‘wry’ tails where the tail is held to one side (awry) is a recessive characteristic and once established in both sexes of a line it is impossible to breed it out without an out cross.

Other recessive features include feathers on the legs and feet, twisted or bent breast bones, the odd white feathers in the wings or tail, curved and roached backs, bent toes, long legs, long back, comb rising at the back of the head, straight comb, a comb with a single leader, or ingrown leader, combs with side sprigs, some forms of crooked toes, to list just some of them. Also the black stripe of the hackle feathers running out of the tip of brown leghorn and Barnevelder males is recessive as well as the light coloured shaft is a recessive trait. Birds with bright yellow legs have the yellow genes in both of the skin layers on their legs and are dominant to white legs. So a pair of birds each with yellow legs can produce light yellow or white legs.

Be aware that some recessive traits can be desired while other ones a curse. Look for the recessive features and decide if it is desirable or not and select your breeders accordingly. For example, very dark eyes in Sebrights is a desirable recessive trait, and once established it is easy to maintain because when the dominant red eye gene is missing from the breeding pen, there exist only the dark eye genes. Dominant traits such as drooped or low wings are easy to visually pick and although there may be the odd bird where atavism occurs in the next generation (i.e. they resemble a remote ancestor rather than their parents) and they hold their wings high (the recessive gene) they can be culled and with some luck the culls with the recessive gene can be reduced and over time can be eliminated. In other words the dominant trait can hide the unwanted recessive gene and it is difficult to establish a dominant trait as the only gene of any feature in a line of birds. Keeping good records of breeders can be helpful. When breeding you just can’t ignore the effects of genetics and be an efficient breeder. Just putting two good looking birds together and hoping for a magic result is taking the long way to get results.
To reiterate on these ideas the classic Punnett grids that follow are a graphic way to show the same ideas.

If “D” represents the dominant gene and “d” represents the recessive gene then when a bird has a pair of genes of DD or Dd then the dominant gene or trait will prevail.

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The recessive trait will only be displayed when a bird has two recessive genes dd.

A mating between two birds when one has a double dose of dominant DD and the other has double dose of recessive genes dd all the resulting progeny will be of the dominant trait carrying the recessive gene (Dd).

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If one of the above progeny (Dd) is mated to the bird with the recessive trait (dd) bird then half of the young will be of the recessive type (dd) and the other half will have the dominant trait (Dd) and have the recessive gene hidden from view.

If both of the birds mated have the recessive trait (dd) there is no dominant gene so all the progeny will all be of the recessive trait. Alternatively if both have the dominant trait (DD) all the progeny will have only the dominant trait and the recessive gene has disappeared.

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When both of the mated birds each have the same dominant trait (eg short back) and but also have the recessive gene (long back) then about one in four (¼) of the progeny will show the recessive trait (long back) and the rest will show the dominant trait (short back).

So if you mate two birds that look as though they have the same trait and some of the progeny have a different trait then that new trait is recessive.

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When both of the mated birds each have the same dominant visual trait (eg smutty tail feathers –Dd or DD) and only one has the recessive gene (clear tail feathers-d) then all of the progeny will show the dominate trait (smutty tail feathers DD or Dd) half will have the recessive gene (clear tail feathers-Dd but have a smutty tail feathers). If you mate two birds that look as though they have the same visible trait (smutty tail feathers-DD or Dd) and they produce the recessive trait (clear tail feathers-dd) then that new trait is recessive and both of the mated birds will have the non visible recessive gene (clear tail feathers-d). A bit of guess work, luck and several trials may be required but once you have one bird with two of the recessive gene (clear tail feathers-dd) and it will have the recessive gene in a visible form. Breed it with a dominant (smutty tail feathered) bird it is only a matter of generations to eliminate the dominate trait (of smutty feathers-DD or Dd). The dominant fault of crimpled flight feathers and others can be treated the same way.
When considering more than one trait then multiply by 4 for the number of possible outcomes of each extra trait. e.g. two independent traits produces 16 possible results, and 3 traits produces 64 possible results and 4 traits produce 256 results. By fixing a trait into a flock so that there is only one form of the traits’ gene available that reduces the number of possible results by a factor of four.

Take a good deal of the guess work out of breeding by using these genetic ideas as to what will be the likely results of any particular pair of birds that have been mated. Selecting the birds to make up a pen can only be a choice from what is available, and what can be incorporated in future pairs. However if the trait or gene that you are after is missing and your flock does not have it, then an ‘import’ is necessary to incorporate that trait, whether it is recessive or dominant. It can be so frustrating knowing what you want and not achieving a fruitful outcome, you seem to get one trait right only to find that another problem crops up. Sometimes a fault can be rectified by selecting a bird that is as close as possible and persevering over the years.

I have written these notes to pass on the observations that I have made to help you, as they are not easily found in poultry literature. It is one thing to read about selection criteria and another thing altogether to apply them to the birds in front of you, but keep a close eye to details and success is yours to have. Progress can be slow and sometimes backwards but persevere. There is a great shortage of people who are prepared to persevere with the challenge of breeding Sebrights.

After breeding Sebrights for some thirty years, I believe the following points to be true, and when I started using genetics it sped up the improvements of the birds in my flock.

**FERTILITY**

1. **Select for fertility** in males and good layers from females, because without fertile eggs there is no next generation! Birds that are not producing fertile eggs are just not worth their keep except as a decoration in the front yard. A bird’s good looks is no certainty that it is a good breeder that will produce a winner, the bird could be infertile, or it may not find the conditions that it is penned in is not conducive to breeding, or the drive to mate does not jell between the male and female.
2. **Always label each egg using a 5B grey lead pencil** so you can follow the fertility of each pen and know where the successes and failures come from. i.e. keep a tally of eggs laid. Be aware that most marking pens have toxic fluids in the ink that can kill the embryo.

3. Use a small piece of lammi panel screwed on the outside of each pen for labelling and feeding/breeding notes using a 5B grey lead pencil.

4. **The dark colour of the hens comb** makes it impossible to tell if she is laying by the colour of her comb but the size of the space between the bones on each side of the vent gives a good indication if there is enough space for an egg to come out. Another good indication is the vent appears to smile when laying and is sad when not.

5. You can expect a good layer will lay about three eggs a week during the four month season for about 4 or 5 years after that she will stop laying because she has exhausted her supply of egg follicles that she had when she was hatched.

6. **The hens mostly lay late in the season** i.e. late spring - early summer when other breeds have finished, i.e. November – February and usually finished by the end of April. They seem to require lots of bright day light to stimulate them into lay. This is OK because the Sebrights can mature quickly enough to show mid winter. One pullet that I have hatched in December started laying late February. To stimulate laying in winter use artificial lights for 4 hours before sunrise. I have been told that Columbian Wyandotte bantams have a similar time line for reproduction. Standard sized birds hatched in February will lay in 5 months in July so can be set in the incubator alongside the Sebrights eggs.

7. I use an incubator to set the eggs whenever they are laid but the cocks are usually infertile in winter. The ability of a hen to be an effective reproducer is related to the number of eggs she lays, and good laying is genetically reproduced from mother to daughter. **The hatchability** of eggs is usually about 30 to 50 for every 100 eggs and about 25 to 45 will hatch, of those only one or two will be worthwhile. With those numbers it is no wonder that Sebright breeders are reluctant to sell eggs because of the fear of being abused for the poor hatches. Some say this is all part of and parcel of the hen feathering of the males? But in general birds that have a rosecomb have a low fertility and lay fewer eggs in spasmodic groups of days, it is not only Sebrights, brown leghorn bantams with rosecombs and Silkies have the same problems. I have found a rosecomb leghorn that all her eggs would develop to about day 19 then promptly stop growing and do not hatch some sort of lethal gene in action (not common). Mind you, a Sebright hen hatched six out of the 10 eggs set under her in April.
8. There are claims that males that have the top tail feather curved are more fertile!

9. I wonder that if a strait combed bird with a flyaway comb mated to a rose combed bird would have a high fertility? The progeny would all have the dominate rose combs carrying the recessive straight comb gene. Note, a straight comb is a disqualification.

10. Feeding a good ‘breeders rations’ and the correct temperature in the incubator are crucial for hatching success. It can also be said that a good diet is also important for young birds to develop good reproduction organs as they grow.

11. I usually set the Sebright eggs weekly and I have had no problems with setting 10 day old eggs! But basically it’s a waste of time setting eggs that are more than 14 days old.

12. During very hot summer days I will incubate any eggs that have been subjected to 30°C plus temperature on a daily basis, because it would be a waste of time to try to store them in temperatures over 20°C. When it comes to brooding the chicks I have had no problems brooding the various age groups together with up to 4 weeks age difference.

13. Older hens will not accept females as newcomers into their pen, so hens cannot be shifted around nilly willy. They behave the same way as bantam OEG and will never completely accept a new addition into the fold. So raise the pullets together from a young age. Or have lots of pens and cocks to set up individual mating pens. It is usually OK to move cocks about from pen to pen where as moving the hens will put them off the lay. One trick that sometimes works is to move an old hen out of a pen then introduce a new bird and after 24 hours or so return the hen to make up the expanded group.

14. It has been shown by Clive Carefoot that the sperm of rosecomb cocks remains viable for only 5 days (compared to 10 days for birds with straight combs). This is particularly so if they have a lot of workings on the comb and in winter. So a hen left a week without a male should be clear of sperm and ready to produce fertile eggs from a new male after about two days. Also logically the fertility of the rosecombs must be less than straight comb birds.
15. Sometimes the hen will just not mate with a particular cock, changing cocks or single mating may be the solution or a complete change of venue may suit her and start a new romance. I have a set of twelve double show pens (1200x600) see p25 with perches that allow the birds to be housed in pairs and trios or even up to 4 birds without the litter becoming gluggy. Bantam show pens (450x600) can only house two birds. See p26

16. It goes without saying, always keep a least two cocks, as one may fall off the perch or be infertile. The infertility may not be the cocks fault the hen can refuse to mate with a particular cock bird or just not capable of producing the fertile eggs with any cock bird even a proven breeder that is not aggressive enough to dominate the female.

Some cocks become infertile after two years.

17. Birds that are continually disturbed by noisy neighbours squawking loudly in nearby pens can be disrupted by the cacophony and their breeding upset resulting in no fertile eggs. The solution is to use an old radio tuned to ABC classic FM or jazz and brain wash the birds of the virtues of good music and like magic they settle for a quieter life for all and fertile eggs.

18. Old hens will beat up young males so care needs to be exercised when making such a mating. You may need to establish the young cock in a different pen and then move the old hen taking the risk that she may stop laying.

19. Putting a laying hen into a show for one day will put her off the lay for about 6 weeks.

20. In the autumn hens that do not produce young are let out to free range and fend for themselves. Some of these infertile hens loose in the yard go clucky and make excellent mothers. The trick is to find their nest of eggs which has triggered the cluckiness and set fertile eggs under them and to protect them from foxes. Around the house garden is a good place a as they don’t scratch up many plants and can be found easily. The chicks they raise appear to be better than artificially raised chicks and they make great entertainment for the family.
21. **Selecting for resistance to diseases** such as for Mareks will become automatic without inoculation because the disease resistant birds will be the only survivors left to breed with during the next season. It does no one a favour breeding birds that produce young that are susceptible to diseases because the adults have been inoculated.

22. I have been told that Stalosan F is a good **coccidiostat**, it works well for calves and fowl

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**TYPE**

*Shape makes the breed, colour distinguishes the variety*

The standard allots 20 points to Type, 10 points for Tail and 5 points for weight that’s a total of 35%.

23. **Stance** - a cocky, cobby bird that look like fan tail pigeon with a stance that has the head held back with the chest pushed out that looks like an ‘S’ shape. Probably a recessive trait, I haven’t got any birds that do not do it now, but I once had them. Judges seem to go for compact birds with short backs and the head held back.

24. **Tail** - The males should have hen feathers i.e. no sickle feathers in the tail and no hackle feathers (a dominant gene). Sebrights should always be fanning their tail, probably because they are easily excited, males more so than females. There is a dominant gene that makes the birds fan their tails all the time. The tail is held at about 110deg to the back (the standard says held high). Some males will pull their tail closer to a squirrel tail position when with females or when in front of strangers. Lifting the tail from the horizontal is a recessive gene or maybe several genes interacting for the different angles. The angle of the tail that a breeding female affects the males she produces.

25. **Wings** - Sebrights should have large drooping wings carried low. This is caused by dominant genes, where as tightly held wings held up is caused by recessive genes. This effect can be produced from drooping wing parents every now and again when each of the parents carry the uplifting recessive gene. There are four levels of wing carriage ranging from very high, to high, then low and very low. It is possible that two or more genes are interacting.

26. **Short legs, and thighs** set “well apart” this is a dominant gene and if only one of a mated pair has short legs and carry the gene for long legs. they will produce about 50% with short legs. Breeds like leghorns require long legs (recessive gene) and once established in a flock they are there for all future generations.
27. The “broad and prominent breast” required by the standard is a dominant gene, also the “legs short and well apart”. I think that the narrow body which is associated with hocked legs is a recessive trait.

28. **Split wings** is where there is a large gap between the primaries and secondary feathers. This is a recessive gene and like any recessive trait it is difficult to breed out.
29. Full sweep of back - **a good flourish of coverts or cushion** at the base of the tail is needed to create a sweep up from the back to the tail feathers, this is because it makes the back look shorter with a desirable ‘U’ shape outline. There is a dominant gene that creates this feature. There seems to be three parts of the back that have their own gens they are the shoulders, the middle, and the cushion.

![Not having cushion feathers at the base of the tail gives the visual appearance of a long back this is helped by the tight neck feathers.](image1)

![This bird has the same length of her back, but the cushion at the base of the tail and the fullness, of the neck feathers creates the look of a short back](image2)

30. **Wide neck hackle feathers** forming a wide skirt at the back along with the head held back to form the ‘S’ shaped front of the bird helps to create a vision of a desirable ‘U’ back line and a shorter back.
31. **Flat back**, this also helps to visually create a short back, (a dominant gene) so if a curved back exists (a recessive gene) in one of the birds in a pair it can appear in up to 50% of the young. There is another recessive gene that causes a raised spine at the fore of the back.

32. **Short back** is less than a hand width or 100mm or 4” (a dominant gene) but if you only have long backed birds you will not breed short back birds. This is because a long back is recessive and it is fixed in the progeny if both parents have a long back.

33. A pair of birds where each have **short back** can produce a long back in their offspring when the recessive components of the two parent’s genes come together. By only using short backed birds in the breeding pens over several years the recessive long backs will become a rare thing in the flock. Sometimes it may be necessary to use a long back bird with a short back bird to get some short back birds of both sexes or some other desirable feature in to the flock.
34. **Short backed** birds seem to be more likely to have hocked legs.

The bird on the left has a deep body and is heavy with short legs, the one on the right is lighter with long legs.

35. **Weight** - Many Sebrights are too heavy they should be - males 825g and females 510g. It is difficult to produce lighter offspring from heavy females. The heavy body is a recessive gene and a small bird is needed to have small offspring. The small size maybe a reason for lower fertility, hence there is a leaning towards the larger birds to breed from. Considering that there is only 5 points for weight is it any suprise?

**LACING**

*Of what’s left select the best for lacing, as this is the most visible feature of Sebrights.*

The standard allots 25 points to lacing and 15 points for ground colour that’s 40% for the feathers!

36. Usually the lacing improves with each successive moult! It takes 3 mouls to see the true lacing on Sebrights, but a fairly good indication can be seen on the second lot of feathers. This makes it difficult to sort the young birds out for lacing until they are nearly fully developed. However in the mean time birds with other body faults can be eliminated. e.g birds with cow hocked legs, long or curved backs, wings held up, comb problems etc.

37. **Lacing is autosomal** and both parents must have matching lacing genes for the same part of the body to become visible on their progeny. The parts include the breast, the
three sections of the back, the thighs, the tail, the wing buts, the wings, the secondary flight feathers, the main flight feathers, the neck, etc.

38. For some reason it is much easier to breed birds with **good lacing** and combs on birds that have a red comb, but it usually takes a couple of extra years and many more chickens to achieve the same on mulberry comb birds.

39. **Good lacing on the breast** usually leads to good lacing for the whole bird.

40. Look for even, sharply defined and even **lacing around the edge of every feather** from feather to feather each almond shaped if it is available. (A dominant gene.)

41. The feathers on the body, breast and back should be the same size and the almond shape is mandatory.

42. The best way to get **medium lacing** is to use both male and female with medium width lacing, however a fine laced bird mated with a broad laced bird can produce medium lacing. The broad lacing is recessive.

43. **Fine laced birds** tend to have longer legs. (a recessive feature), longer backs (recessive feature), the cushion feathers to the tail disappear and with them the sweeping curve of the back. (Ref The Sebright Manual page 12)

44. Avoid **crescent tipped feathers** that have broad lacing at the tip of the feather and thin lacing on the sides of the feather. Caused by a recessive gene.
45. Eliminate **lacing that has a rim of the background colour** on the outside of the lacing (on the outer edge of the feather) some call this double lacing or frosting but in truth it is a form of pencilling and is caused by a gene missing. This is a dominant effect and can be eliminated in one generation by not breeding from those birds.

46. The **almond shaped feathers** “is desired” “but never pointed” The neck feathers on most birds are pointed and pencilled (frosted) To eliminate the ‘V’ shaped ends select one partner in a mating with some of the feathers the right shape and a few generations later they will extend to the whole of the flock of the Sebrights.
I think that the almond shape is a dominant gene.

47. Lacing on the **wing butt** is caused by a dominant gene.

48. Lacing on the **thighs** is uncommon and is difficult to notice because the thighs are hidden behind the dropping wings, the legs appear black because there is no lacing which is created by a dominant gene. Black leg feathers is a recessive trait.

49. When the **under colour is dark slate the lacing is better**, but this, like good lacing, is difficult to achieve. The dark under colour helps to eliminate the lighter feather shafts showing out on gold birds which is probably a recessive trait and difficult to remove.
I have breed a bird that does not have this fault from crossing golds with silvers in the second generation.
Dark down is somehow associated with the mulberry comb colouring.

50. Use males that have a good **green sheen on the lacing**.

51. **Narrow feathers on the back** which is recessive can be bred out by mating with a bird with broader feathers (dominant gene); to create birds with even feathers all over. It may take a few generations to be successful in removing the narrow feathers from the flock. The feathers on the back need to match those on the breast and wings in width.

52. **Flat ended or chisel feathers** are undesirable and are caused by a recessive gene.
53. Some birds have **structurally weak feathers** that break apart at the lacing, it usually starts at the end of the feathers’ shaft. Birds with this weakness are almost useless for show purposes.

These crimped primaries are on the inside edge (dominant gene)

These flat ended feathers are caused by a recessive gene

This is an example of the lacing breaking at the end

54. The lacing can become unattractive when the feathers shaft takes a nip or notch out of the inner edge of the lacing where the shaft passes through the lacing creating feathers that look pointed. This fault is common in silver laced Wyandottes

Pointed feathers cover the whole bird probably a recessive gene “feathers never pointed”

The lacing is not even around the end of the feather where the shaft is passing through the lacing.

This is getting close to the desired lacing

55. **Pointy feathers** are just not wanted but difficult to eliminate them in the neck hackles

56. **Lacing on the primary wing feathers** is usually incomplete because it is missing on the outer edge. It is possible to obtain. Silver laced Wyandottes have a similar problem but I have only seen one bird with fully laced primaries. It seems as though there is a missing gene or a modifying gene in action. In all my years breeding Sebrights I have never had fully laced primary wing feathers on a bird but I have seen photos of birds (about 1939) with flight feathers that are laced. I have birds that have fully laced primary feathers on the first flight feathers that they have when young, but the second and later feathers lose the lacing more so on the outer edge. It may be possible to
breed this into a line by selecting the young birds that have good lacing and little smutting to use for breeding pens.

These young bird have lacing on both sides of their flight feathers but will moult out to have no smut or lacing.
It must be possible to breed birds that have visible lacing on the flight feathers!

57. Try to eliminate smuttiness on the body of the feathers particularly the tail and the secondary wing feathers where it is highly visible. A dominant gene and can be eliminated by using one of a pair with clear feathers. If one of the birds has two of the smutty genes then all the progeny will have smutty feathers with the clear feathering being recessive and it will take another generation to get clear feathers in the progeny tail showing smutty feathers  

tail without smutty feathers

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The dominant fault of crimpled flight feathers and others can be treated the same way.
58. **Crimping of the outer primary feathers** is usually on the left hand side and they seem to be slower growing. This is caused by a dominant gene and if ignored can spread throughout a flock. This occurs in other breeds as well. It can easily be eliminated by using at least one of a breeding pair that does not have the fault then only breeding with crimp free birds it may take two or three generations to succeed.

59. It is difficult to have laced feathers covering the breast bone.

60. A black headed bird is caused by heavy lacing and narrow feathers, where as white head and ‘ bishops’ collars are caused by lack of lacing or frosting that has a edge of background colour on the outer edge of the feathers. What is needed is a “Goldie Locks” job even lacing all over, good luck with it.

61. **Translucent feathers** are a problem with silver Sebrights and is put down by some judges. The feathers need to be denser to eliminate this but how to breed them alludes me. Maybe this is possible from crossing with gold birds or by the selection of birds with marginally denser feathers, mainly males, over a period of time.

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**COMB, FACE and LOBES**

The crowning glory of an outstanding bird.

The standard allots 5 points for the comb and 10 for the face and lobes.

62. **Rosecomb with a single leader is required.** The rosecomb with multiple leaders and the fine workings on the top is produced by dominant genes. A cross with silkie to get mulberry combs produced the multiple leaders. It has been said that the mulberry colour originated from silkie in China. The workings or the small rounded bumps on the top of the comb was reported to decrease the fertility of the birds. by Carefoot.

63. There are **recessive genes** that produce the following features of combs

(a) a comb with a single leader,
(b) a leader that is round,
(c) a comb rising at the back of the head,
(d) an ingrown leader,
(e) a straight comb.
(f) a smooth top surface of a rosecomb.
(g) a hollow on the top surface of a rosecomb.
(h) a comb that is high off the head.
64. Birds raised in warmer conditions tend to have larger combs.

65. All of the rules for breeding mulberry combs are an enigma to me, co-dominance probably exists and at least two genes are involved. There appears to be dark purple, median purple, light purple or dark red, and red, and all these shades can be produced from a pair with purple combs. Red combs seem to be recessive and associated with red eyes and light down. The two or more genes from each of the parents interact together to give the various shades from red to purple but it is difficult to breed a dark purple comb on a male. Maybe it is the increase of blood flow to the comb in the breeding season or as the birds mature causes the mulberry comb look redder. A male with light mulberry will have a recessive red comb gene and when mated to a hen with the recessive red gene will produce red combed birds on a quarter of the chickens hatched. Try to select a dark purple face around the eye and cere of the female; it seems to indicate carrying the dark purple gene that tends to darken the male progenys’ face and comb. The red gene will colour the base of the feet a light colour, and also make the eyes and face and skin lighter where as the mulberry genes colour the skin the feet and flesh a dark blue. The skin on the breast of a light mulberry combed male can be light where as on a dark faced bird the breast is dark blue. The skin has a smoother and tougher texture than normal soft feather birds.

66. A red comb male cannot produce a mulberry comb male, no matter how purple the hen’s comb (some sort of recessive or inhibiting gene), but can produce mulberry combed females form a mulberry combed female because some of the comb colour is on a sex gene and unlike people male birds have two active sex genes and the females have only one. There is little point raising red faced chicks as nobody wants them as adults so they are not worth their keep. I usually cull them at hatching.

67. The Chinese place a high value on the dark flesh of mulberry birds, and they are a good group to approach to dispose culls.

68. Dark eyes, the standard says “as dark as possible”, this is a recessive gene so if both parents have dark eyes it is fixed in future generations. This is enhanced by a dark cere and face around the eye, and lightened by a mulberry comb.

69. Ear lobes are to be flat and unfolded, that is difficult feature to breed. The colour is dark purple or dull red (mulberry) in the standard while white or turquoise lobes (usually from silkies) are frowned upon by judges.

70. Wattles “well rounded”, this is prominent on males and a feature of Sebrights. It is probably a recessive trait. Females will only have prominent rounded wattles if they have a prominent comb.
71. Females can have a comb that is small and flat against the head, or a larger comb that stands out looks better (a dominant gene).

72. The shape of a **female’s comb is important** when selecting a mating pair as it affects the male progeny’s combs. I have produced male progeny with fine workings on the comb from females that have fine workings and the male that has none. A single leader on a male can be bred from a female with a single leader; it may take several generations to achieve a desirable outcome.

73. The mulberry comb on males can be breed from Silkies, it only takes about 10 years or so to produce Sebrights with lacing and a comb with a single leader without a hollow.

74. It has been touted that all mulberry and purple combs stem from the Chinese Silkies. The turquoise ear lobes are produced by a recessive genes. The polydactyl feet with feathers are a problem. Note the round wattles, dark eyes, and the deep purple comb that is hollowed on top, these features make a good start to breeding Sebrights with mulberry combs. Use a Silky male that has a feather colour of white or gold and a Sebright female with a flat comb with a single leader and ear lobes that are without white or turquoise colouring. It will take perhaps five generations to get a respectable bird to show. Using Silkies is the long way to go to achieve mulberry in males.
75. Using birchen OEG bantams with mulberry is a quicker and slicker way to get there with a single leader. Also use birchen so that the feathers will be laced with the first cross. Stewart Robinson bred purple faced and combed Sebrights from OEG Brown Red birchen bantams some 30 years ago by using the OEG male over a gold Sebright hen. The photos below are of the first generation (best 2 out of 15 chicks) out of a similar cross he made last year that show a remarkable amount of lacing and a deep purple face and comb. They have a short back, hold their head back like a Sebright should and are about the right size with a single leader (which does not occur with Silkies). The feet are not feathered and not polydactyl. These look like a promising start to get to laced Sebrights in 3 or 4 years. The males have two sex genes with the purple gene and a recessive straight comb gene.

Both of these young cockerels have spasmodic single lacing, purple comb with a single leader, short back, head held back, dark eyes, and drooping wings a good start! I prefer to use the one on the right on a well laced gold Sebright for the second generation because he has shorter legs a better droop of the wings and better neck hackle lacing. I will probably use both males, there is no point using the females as it is the red comb on males that is being aimed at to replace with mulberry colour. It looks like it may take two or three more generations to get there.

Watch this space!
BREEDING THE COLOURS
The standard allots 15 points for colour.

76. As well as Silver and Gold there exists a **cream colour** of Sebrights that will breed true, they have been around for a very long time but they are not accepted in the standards as a pure Sebrights colour. Similarly, there is a dark tan which is not gold and this also is not accepted. The gold needs to be an even golden bay on all of the feathers with no mealiness of light and dark areas.

77. **Gold** is recessive to cream and cream is recessive to silver.

78. A Gold male will only produce gold pullets irrespective if the hens are silver, cream or gold.

79. A pure silver cock will only produce silver pullets and silver cockerels that are carrying gold when the female is gold.

80. A Silver cock can and when it does carry gold as a recessive gene, it will produce either gold or silver pullets in a 50/50 ratio. Some breeders will not breed with them but it is only way to transfer a trait from a silver male to a gold male.

81. Gold cocks cannot carry silver!

82. A gold male over a cream female produces gold females and cream males carrying gold.

83. Most of the depth of colour comes from the male. With silvers, be sure to select one that does not have transparent silver that allows the lacing of the underneath feathers to be seen through the top feathers, if they exists. Silver laced Wyandottes have a similar problem.

84. It is more challenging to breed good gold birds. The biggest challenge is to eliminate the light shafts of the feathers (a recessive gene) Chris Parker may have done it! I don’t know how he did it. I think it is a recessive gene and locked into most flocks. Welsummer females are required to have light shafts in the body feathers and it is always there because it is locked in by recessive genes.

85. An old chook breeder from a line of chook breeders once said to me that if you keep Sebrights you need to keep both gold and silver to keep up the vigour of the breed by crossing the colours.

86. The fact that a pure coloured cock will produce females the same colour as he is and can be used to get birds to make up a flock deficiency of his colour.
The breeding of the colours can be displayed using a classic Punnett grid table

The colours Silver and Gold are controlled by sex genes that behave differently to the normal (autosomal) genes. The males have two active sex genes whereas as the females have one, opposite to humans where the females have two sex genes and the males have one.

The following symbols have been used

♀ Male ♂ Female S for Silver s+ for Gold - for no gene

<table>
<thead>
<tr>
<th>Silver ♂ (S/S)</th>
<th>S</th>
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<tbody>
<tr>
<td>Gold ♀ (s+/-)</td>
<td>S+</td>
<td>s+</td>
</tr>
<tr>
<td>S+ with Silver ♂</td>
<td>S/ s+</td>
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<tr>
<td>Silver ♂ with Recessive Gold</td>
<td>S+</td>
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<td>-</td>
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<td>Silver ♀</td>
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This Punnett shows the results of a Silver cock mated to a Gold hen only producing Silver offspring and the males have recessive Gold genes.

<table>
<thead>
<tr>
<th>Gold ♂ s+/-</th>
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<tbody>
<tr>
<td>Silver ♀ (S/-)</td>
<td>S/ s+</td>
<td></td>
</tr>
<tr>
<td>Silver ♂ with Recessive Gold</td>
<td>S/ s+</td>
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<td>-</td>
<td>s+/-</td>
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<tr>
<td>Gold ♀</td>
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</tbody>
</table>

This Punnett shows the results of a Gold cock mated to a Silver hen producing Gold female and Silver males have recessive Gold genes.

<table>
<thead>
<tr>
<th>Silver ♂ with recessive Gold (S/s+)</th>
<th>S</th>
<th>s+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold ♀ (s+/-)</td>
<td>S/ s+</td>
<td></td>
</tr>
<tr>
<td>Silver ♂ with Recessive Gold</td>
<td>S/ s+</td>
<td></td>
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<tr>
<td>-</td>
<td>s+/-</td>
<td></td>
</tr>
<tr>
<td>Silver ♀</td>
<td>s+/-</td>
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</tr>
</tbody>
</table>

This Punnett shows how a Silver cock with recessive Gold can produce a Gold male by using a Gold hen. The females produced could be Silver or Gold.
MATING HINTS

87. Where possible avoid mating birds with the same fault together. It’s all very well to say ‘don’t make up breeding pens with the same fault’ but you may not have any choice in the matter with the stock you have in hand, so an understanding of what’s recessive and hidden from view makes for realistic expectations. In the mean time search for a bird that has the missing trait.

88. To obtain an improvement of any breeding, requires a production of about 25 to 32 young birds to be bred to get one good’n. This is because it is the unwanted recessive genes that create the culls with the undesirable traits. The greater the number of these unwanted recessive genes in a breeding pair the greater the number of culls that are produced in the young. So where there are few of these unwanted recessive genes existing in a flock, the number of birds needed to produce a good one is greatly reduced. With a bit of luck you may get a useful sport from the crossover of DNA.

89. It may take several generations of breeding (like 5 to 10 years) to get a combination that resembles anything like all the good features on one bird. Don’t give up, the satisfaction of creating a top show bird is wonderful when it happens. Using the rules of genics will speed the process considerably.

A short cut is to buy the best birds that you can find at almost any price! It will be cheaper than breeding a good’n but not as much fun. Don’t mix the breeding line with an out cross unless a specific aim is being pursued. Always try to get a cock and pullet when importing so that you have all the genes. The two times that I have imported Sebright stock it has not caused any dramas. It appears that because there has not been any imports to Australia for some 60 years most Sebrights in Australia are related. However when ever I have used new strains of double laced Barnevelders all sorts of things went wrong with their lacing and their ability to resist diseases, good thing I kept the birds bred from the imports separate. So where possible have faith and work with your line of birds.

90. Work on one fault at a time, in doing so take care not to cull a desired gene. For example several years ago I eliminated all the birds that did not have dark eyes, now I have only Sebrights with dark eyes (except with red faced birds). At the present time, I am working on other faults one at a time. e.g purple combs with rising leader and good workings.

91. Sometimes the only solution is to import stock with the desired gene and slowly introduce the line into the stock, for example a short back. There is a remote possibility of a sport occurs that has a short back, (Very remote) and if your stock has no short backs an import is necessary, same goes for the cushion feathers to the tail (both are a
dominant trait). In short look for the features you need nobody will sell the perfect bird.

92. Don’t be afraid to **mate closely related birds** like mother/son, father/daughter, sister/brother, try not move out of a blood line. Birds are not as precious as people and can be culled when some recessive genetic fault occurs when close inbreeding is practiced. Only after 20 years will fertility problems occur but running several breeding pens reduces the risk. Only out breed when a dire need occurs like a particular trait such as a short back, or infertile cocks or no eggs from the hens then where possible use related birds.

That’s a good reason to have a friend or several friends to breed your line or a similar line and you breed their line so don’t hoard all your good birds.

93. **Leg colour** is caused by genes on the dermis and the epidermis. The over laying epidermis dilutes but does not eliminate the dermis colour. I have only seen blue legs with blue feet on mulberry combed birds. This is caused by the dermis being black and the epidermis being without colour. Birds with red combs have blue legs with light coloured feet pads and make a good dinner.

94. **Cow hock legs** is a fault caused by recessive genes and is difficult to eliminate as they can turn up after several generations because you cannot see which birds that are carriers when selecting breeding stock. It can be detected at hatching. Narrow breasted birds (recessive trait) seem to be more likely to have cow hocked legs is there a connection? It can be difficult to access a nervous bird that is squatting but by turning the bird on to its back allows an easy way of detecting if it has splayed legs.
95. Bent toes is probably caused by a recessive gene or possibly a vitamin B deficiency, some people believe that it is caused by high temperature variations of the incubator. I do not think that way.

96. Wry tail is a recessive trait and will be carried by both parents and is to be avoided where possible because they will always be disqualified in a show.

97. The angle of the tail to the body is decided by recessive genes. For three breeding seasons I selected only female cockerel breeder leghorn bantams that had the correct angle and now all of the leghorns both male and females have the correct tail angle. Can a similar selection of the head position and comb work with sebrights?

98. Sebrights are easily excited into a cacophony by loud noises, scraping shovels on concrete, sudden appearance of dogs etc. Using a radio turned to the ABC classic or jazz (no hysterical adds) seems to help settle them down to produce fertile eggs.
BROODING HINTS

99. When brooding if possible **keep the very young Sebrights separate from other breeds** because they are soft and are easily knocked about by the stronger chicks of other breeds. So separate them from other birds except for Rosecombs. Raise a maximum of 25 birds together. When hatching only 4 or 5 a week then brooding several weeks hatching together seems to be ok, just keep removing the oldest ones after 6 weeks when they will be vigorous enough to raise with other breeds.

100. **Very young Sebright chickens** must not be left for long periods without a heater as they have little capacity to keep themselves warm and will promptly die. So for the first week check the heater last thing at night and throw a feed bag over the brooder during winter. If using globes for a heat source use a new globe with each new batch. Limit the number of chicks to 20 to a maximum of 25 to a 40W globe. Add the smallest chick from the previous hatch to educate the new chicks to feeding and drinking. If not available then dip several of the new chick’s beak into the water, and spread food at the edge of the heater.

101. A brooder that allows the chicks a clear view of you approaching them will end up producing birds that are quieter and easier to handle than those chicks raised in a box on the floor. This is because the chicks are not startled by the sudden appearance of a huge human towering over them.

102. In the event of a **power blackout** a good source of heat is hot water in a PET soft drink bottle placed on the floor of the brooder when the chicks are very young.
103. I Feed the chicks medicated 22% protein “Turkey and Meat starter crumbles” which has produced good results partially if a bright green Lucerne (Cameri’s of Marybrough) chaff or grass cut up finely is spread on the litter. They can be feed this ration until they are fully grown.

104. All Sebright chickens if only fed crumbles, whether raised in a brooder or by a hen and fed only crumbles will need their bums wiped at 5 days and 10 days old to remove the manure that can paste over the vent and it will clog up the gut system causing death of the chick. At the same time remove any manure knobs removed from their feet after about 3 and 6 weeks to prevent toe nails being garrotted off.

105. If a chick escapes from a brooder they will not beep when lost, but they will sit quietly huddled up and die from cold and starvation. That’s where Mollie the collie becomes very handy by pointing them out to me, otherwise all I will find is a dried up carcass.

106. A pen that is 600d x 1200w x 750h with a perch can happily hold up to four breeding adults, or raise 6 young chicks. Too many birds in a pen leads to the litter becoming a damp compacted mess and unable to absorb droppings. I add a 2litre scoop of Lucerne chaff that is very green and some sawdust each week. The lucerne is part of the feed regime. Also I feed a hand full of mixed grains each afternoon to encourage the birds to turn over and aerate the pens’ litter.

The pen can be made using a double show pen front with wires at 25mm centres that makes them fox proof. Note the 140mm board at bottom of the pens in a attempt to keep the litter in the pens, the panels used for construction need to be rodent resistant such as galvanised iron or cement sheet.

As the chicks grow they become comfortable looking people in the eye. Having a radio playing ABC classic FM calms the birds from being hysterical at any sound such as a shovel scraping on concrete or dog running through pass the pens. The fan is to circulate air on days over 30°C.
107. When **putting 6-8 week old chicks into large pens** and there are already some older birds in the pen watch out for bulling, the older birds could kill the younger ones.

108. **If a cock bird becomes aggressive** to you, ‘hypnotise’ him immediately. Do this by holding him tight with his back on the litter with his head covered with a hand until his legs are relaxed then leave the bird immobilised on its back in the cage by slowly taking the hand covering the head away in the direction of the beak. As soon as he gets up it is important to repeat the ‘hypnotising’ and he will be completely disorientated and lose his aggression for a considerable time. It works most of the times but some cocks are super aggressive and it is a short time solution. The immobilisation that the bird goes into is a defence that birds do to fool a predator into thinking they are dead. The aggressive cock is only defending his territory and harem but it is important to have control of the birds and to be able to put your hand in a pen without being attacked.

**RAISING BIRDS TO BE IN SHOW CONDITION**

109. The level of difficulty to get a top show exhibit increases from a silver female followed by a gold female, but it is much harder to get a good silver male, and the hardest of all is an outstanding gold male.

110. Young birds taken from a brooder at 6 weeks will destroy the feathers of the cushion going up to the tail when placed in a pen with other birds. It does not matter if the sexes are separated or not, after a few weeks they will be unshowable. I have found that if the chicks are raised on turkey crumbles until they are about 10 - 12 weeks old then moved into show pens in pairs an assessment can be made as to whether each bird has the potential to be good enough to show or to breed. The culls go to the cull pen, the few goodn’s are raised in the show pens or pens of one sex in two’s with a maximum of 3 birds. I recently built two sets of ten training pens, they have been a great asset when sorting and training birds. The 460 x 460 fronts were purchased from Keith Welsh phone 0411038220 they have 35mm mounting tags on top and 20mm on the bottom. I mounted them using fence staples and dowels that allowed the fronts to be easily removed when cleaning the pens. The pens were made from 12mm external ply painted white because that’s colour I had left over from a job.

Set the level of the top pens so that the bottom of the cage door height is at armpit level to allow easy catching of the birds. It is handy to have the pens no deeper than 600mm to allow for easy catching birds.
These chicks are ready to be assessed, they have another moult before maturity but a good idea of their potential can be assessed at this stage of development.

The show training pens that have a 140 mm front board to hold in the litter.

The cage fronts are held in place by using fence staples on the tails that are 35mm long on the top and 20mm long on the bottom, this allows the front to be lifted up and removed for easy cleaning and photographing the birds. The dowel peg or a large nail at the top holds them in. They are not fox proof because the wires are spaced more than 25mm apart. Hanging a sheet of 1” or 1/2” mesh on the front of the cages is enough to deter foxes.
111. **When sorting the birds** for breeding pens, I attach notes about each bird’s strengths and weakness to each training pen, because my memory is fading.

112. **Pen training** is important for showing birds so that their flightiness does not distract the judge from the quality of the bird. Cockerels tend to take longer to train than pullets and the older the bird the longer it takes. Firstly I select birds that are not crazy when I approach a training pen after three days. Then for about a week or so, each day before I feed each bird I place my hand inside the front of the cage and hold it perfectly still until the bird has settled and is not agitated, then I remove my hand from the pen and feed the bird. It helps if the bird is hungry. Gradually I move my hand from side to side and get closer to the bird without them getting nervous. The next week, each day I shepherd the bird to one side and just touch the bird on its side. After that the bird has confidence in you and can be caught anytime without any fuss whenever desired. This confidence remains even if it has been out in a breeding pen for a spell. Having strangers around is good training for shows.

113. **A nervous bird in hand** can be calmed by stroking the wattles on its throat.

    Another way is to put the birds head in your armpit so it can’t see any thing.

114. **Fabric stain remover** works well at removing stains from the flight feathers of silver birds for showing.
BOOKS OF INTEREST

There are very few books on Sebrights that have ever been published, I have also included some books on genetics.

115. Gold and Silver Sebright Bantams by R WISEMAN-CUNNINGHAM
   (a very good read) The Feathered World 1905  (reprints are now available)
116. Sebright Bantams by Roy Van Heosen, Editor
   Bantam Supply House Franklinville New York  1939
117. The Sebright Manual Sebright Club of America  1962
118. Golden and Silver Sebright Bantams by Bill Holland American Bantam Association 1980
119. SEBRIGHT BANTAMS by Joseph Batty second edition 2007
120. The Sebright Club Year Book 1872 – 2012 edited by Chris Parker 2012
121. Digital Magazine AVICULTURE EUROPE http://www.aviculture-europe.nl/
   go to vol14 #5 for some excellent articles on sebrights
122. Creative Poultry Breeding By Clive Carefoot 1986 –(there were only 500 copies printed)
123. Genetics of Chicken Colours by Sigrid Van Dort & David Hancox 2008
   available from David Hancox 29 Cundagai Rd Cooyamunda 2590  ph 02 6942 2152
124. Poultry breeding and genetics edited by R. D. Crawford Elsevier 1990
   1123 pages of very good information my copy cost $183 about 15 years ago
   Maximus Troy Publications PO Box 2727 Ramona California 92065
126. Youtube - Google “Laurie Smart incubating eggs” to view a lecture done at the
   Waggagul poultry club Aug 2017
127. An interesting site on genics https://kippenjungle.nl/basisEN.htm
128. Fancy fowl magazine Vol33 issue5 (Feb 2014) & Vol36 issue8 (May 2017)
129. Pracrical Poultry issue 147 March 2016
130. Australian Poultry vol 30 issue 1 April/May 2019 page 22-23 Breeding Showy Sebrights
THAT’S ALL I KNOW

Donald Rumsfeld the then US Defence Secretary once said in 2002,

"Reports that say that something hasn't happened, are always interesting to me because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns the ones we don't know we don't know."

Rumsfeld was lampooned mercilessly for that comment. These notes were written with the help of Stewart Robinson and were produced to help people to successfully breed high quality Sebright birds. Every year I find something new to add to these notes just as I have found something else to know. Hence a new rev is made. The challenges of breeding Sebrights will never cease. It’s all very well to know the rules but it’s an entirely a different matter to get it all on one bird that can reproduce. The allusive perfect bird is yet to be bred, but the faulty Sebrights that I have are good to have around, they sort of give me a reason to stick about, 88% is good enough for me maybe one day I’ll get 98% or even 99.99% one day who knows?

Send any comments or quires to lauriesmart@iprimus.com.au