

SELECTING FOR BODY CAPACITY

To me body capacity is critical to a successful breeding program. What is body capacity? Think of it as the internal space in a bird's body where the internal organs are found. Why is body capacity important? Without the proper space a birds internal organs can't function properly.

If a birds internal organs can't function properly the bird can't fully develop to its genetic potential, nor can hens lay eggs like they should. It's up to us as breeders to produce birds with good body capacity. As a matter of fact the APA's Standard of Perfection instructs us not to overlook a birds production abilities when we are breeding, showing and judging them. So that tells us it is important.

Body capacity is basically a combination of a birds body length, width and depth. Only by physically handling our birds can we ever have a good understanding of what's going on beneath the feathers.

To some extent you can look at a group of birds and pick out birds with good body capacity. But a visual inspection often doesn't tell you the whole story. Breeds with longer, looser feathering can really fool your eye. What looks to be a bird with a nice size body can easily be mostly feathers.

Feathers can fool your eyes and conceal what's really going on with the body underneath. Here's an experience I had that will illustrate that point. The breed and the breeders name is not important and I'm relating this only to illustrate a point, not to be critical about the breeding choices made, so please let's don't go there. I will say that is was a soft feather breed and large full breasts were the breeding goal.

It was the middle of a very hot summer and practically everyone you talked to experienced problems with heat stress in their flock. This particular individual began to experience heat related deaths in spite of all their best efforts to keep the birds cool. Someone suggested taking small animal clippers and removing the lower half of the birds feathers. This was done, and frankly probably prevented the death of even more birds.

The breeder posted some before and after photos of a cock bird that blew me away. In the before photos this male looked to have a really full, nicely rounded breast, and a wide flat back too.

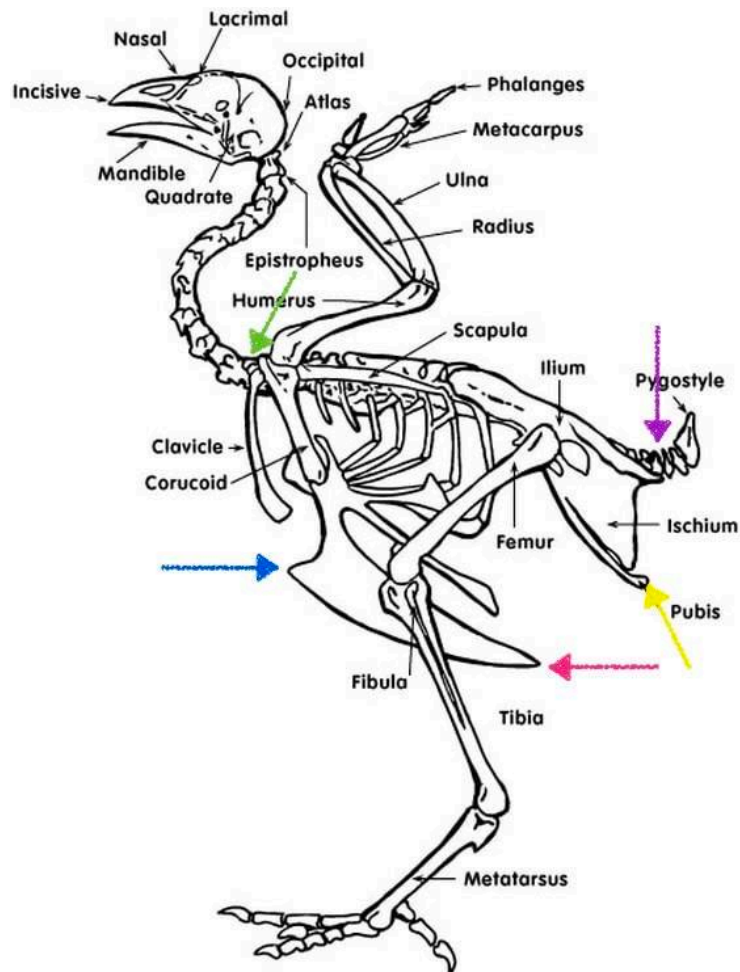
The "after" photos told the real story though. After clipping, the problem became apparent to the eye. The feathers were overly long and after the feathers were removed only about 25% of what was left was the birds actual body. The remaining 75% were feathers laying on the ground. Those long feathers held in the body heat resulting in heat stress and in some cases death. Once exposed the birds body reminded me of a spent commercial leghorn hen with legs at least a foot long. The owner said later that the removed breast feathers were about thirteen inches long.

BODY LENGTH

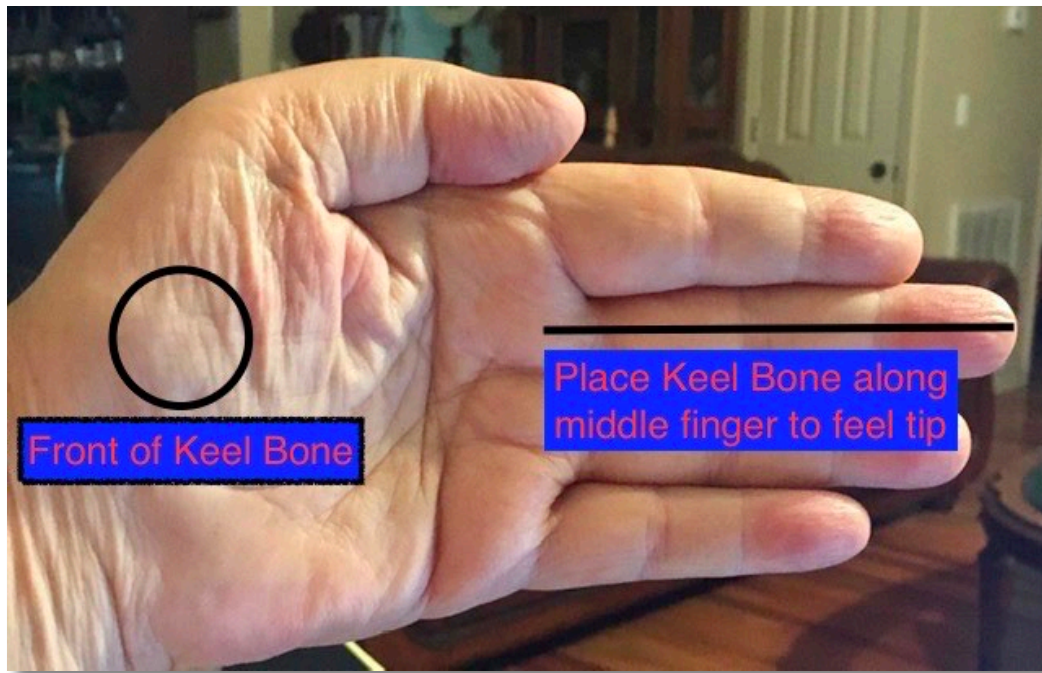
Let's have a look at the first piece of the body capacity pie and that's--body length. It's important that we keep the written breed standard in mind when we check body length in addition to the overall balance of the bird.

Here's an example: Have you ever looked at a bird and thought his body looks too short? Perhaps the bird had very little space between the rear of the neck and the base of the tail. We call that a "coby" bird and it means the same thing in poultry as it does in horses, dogs, etc, and that is short backed.

How do you check the length of back to really know for sure. You do it with your hands and here's how it's done. Hold a bird in one hand by supporting its breast, then place your other hand flat on top of its back (see skeleton image) at the point where the neck joins the back (see Green Arrow) then using your flattened hand see how many hand widths it is from that point to the base of the tail (see Purple Arrow). You can measure the width of your hand to get an idea of the actual length in inches.



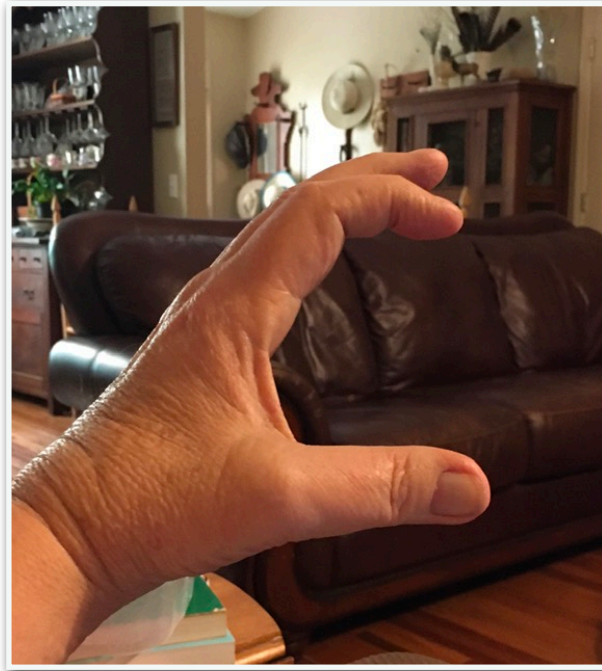
There's another measurement you can make and that will help you measure lengthened that's to measure the length of the keel bone. Refer to the image of my flattened hand and place the bird in that hand with the front tip of the keel bone (see Blue Arrow) against the heel of your hand (see circle on image of hand) then lay the keel bone along the outstretched middle finger to feel where the rear tip of the keel bone falls (see Red Arrow), See if it ends before the end of your finger, at the end of your finger, or past the end of your finger. In other words is it short, medium or long in length? This is a critical first step in learning how to breed to the standard.



BODY WIDTH

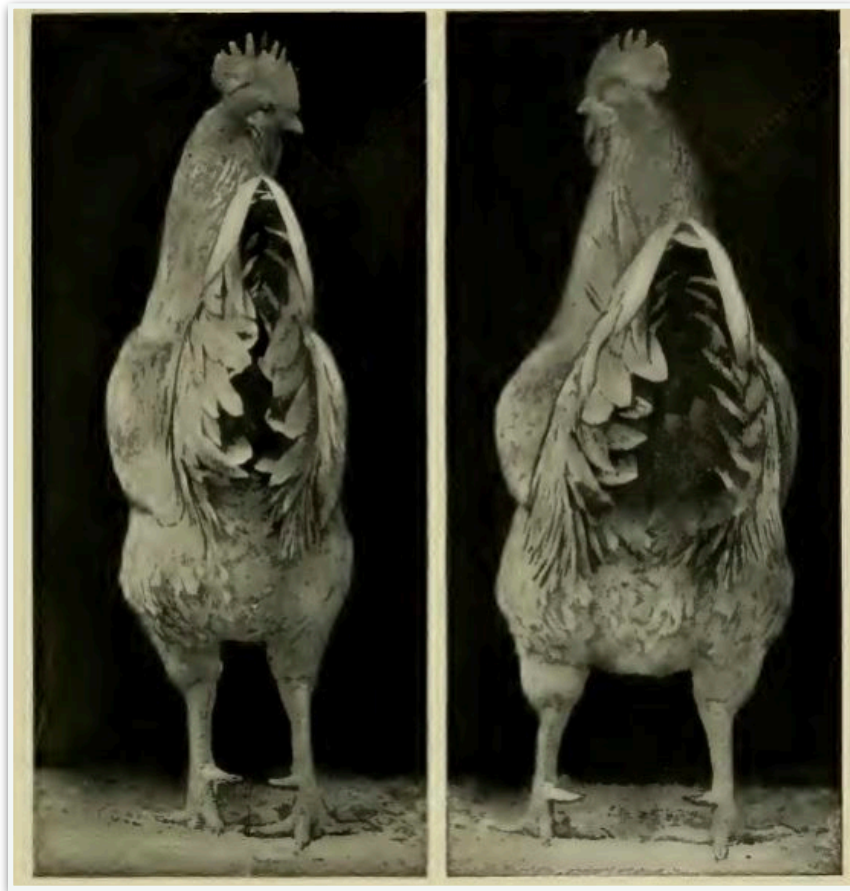
You can't have good body capacity without good body width. A bird's overall balance of appearance is important. That means we don't want a back so wide that it destroys the bird's balance. We also want the body width the Standard of Perfection calls for. So we should look at it as wanting a wide a body as we can produce and still meet the breed standard.

Using your hands will tell what's going on under the feathers. Here's how to do that, hold the bird in one hand and form an upside down U with the other hand (see the first image). Place this inverted U across the bird's back, snugly up against the wings. Then Slowly slide your hands towards the tail, stopping at the point where the legs join the body. Then do another bird the same way, now which bird's back felt wider the first one or the second one. After you've evaluated several birds this way it will become easier to determine birds with narrow, medium, or wide backs.



Another way to check body width is to look at the birds when they're standing still and not stressed. If birds are stressed and excited you'll never get a true look at them. Look at them from the rear. Compare them to second image below. Do they look like the bird on the right or the left? If they look like the bird on the right then they have good body width.

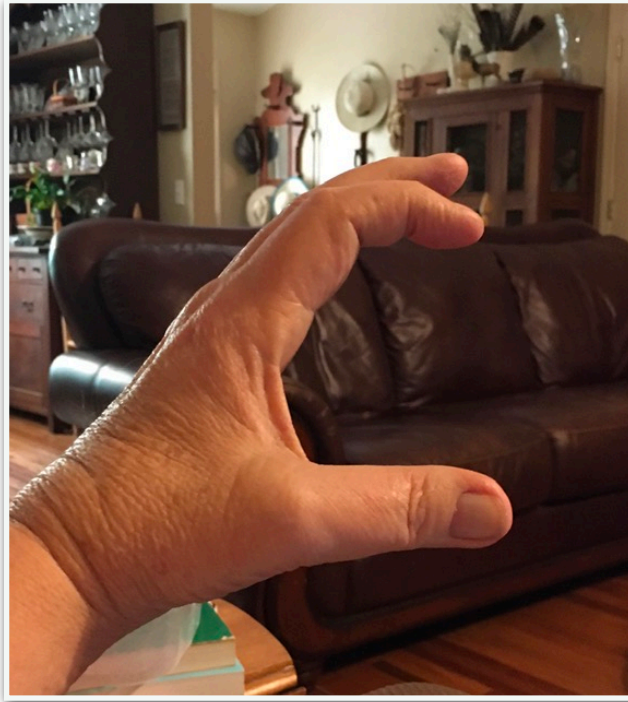
Here's a couple of more points we should look at. Does your bird's tail look like the one on the right or left? The bird on the right has a nice, inverted V shape to his tail and that's how you want most breeds to look. The bird on the left has a tail that looks clamped together, not at all what we want. Finally, look at the legs on the bird on the right, see how his legs come straight down the sides of his body. That's the way you want your birds to look. The width between the legs translate into good body width.



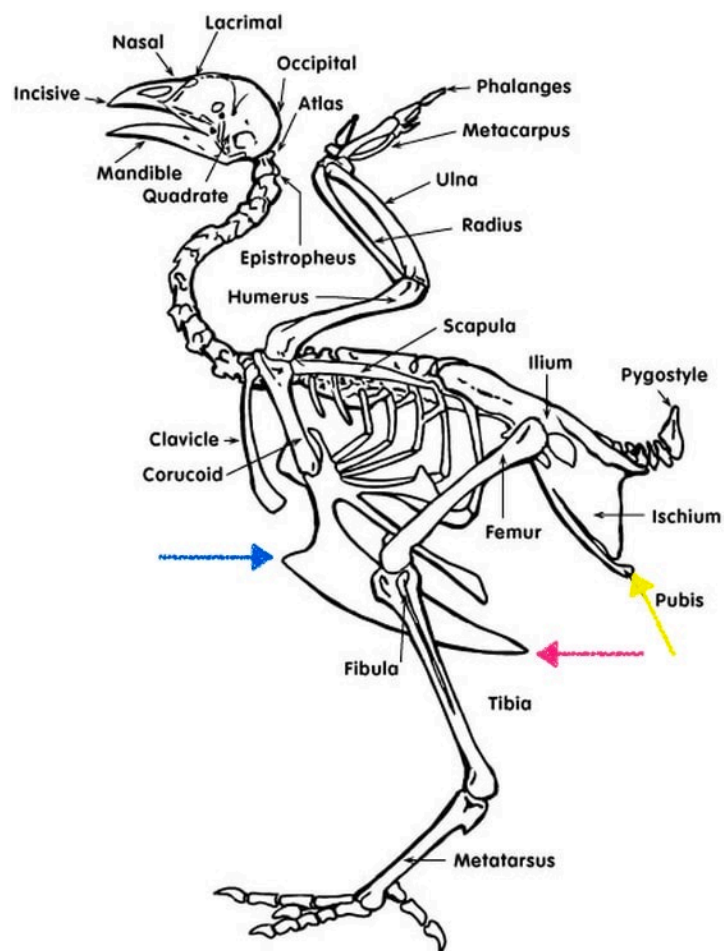
BODY DEPTH

When I think of good body depth I think of a body with good volume from top to bottom. But Just like body width the depth has to be within the guidelines set in the breed standard, relative to the overall size of the breed and the bird must look balanced. How do we measure body depth? Again, our hands can tell us about a birds body and what's actually going on under the feathers.

So how do we determine depth of body with our hands? I have some illustrations to help you learn. Remember our inverted U we made with one hand earlier, see the next illustration if not.



Now let's take a look back at the illustration of a chicken skeleton in the following image. Holding a bird in one hand place your thumb on top of the back just behind the wings. Then place your middle finger underneath the bird at the front tip of the keel bone (Shown by the Blue Arrow). Next take your thumb and place it on top of the back where the legs join the back and place your middle finger at the rear tip of the keel bone (see red arrow). Another important measurement is the distance between the rear of the Keel Bone (Red Arrow) to underneath the pubic bones (Yellow Arrow). Turn your fingers sideways and see how many will fit in that space, the greater the distance the better. After you measure several birds this way you can easily sort the birds into three groups, those with the fullest depth, those with only moderate depth, and those that are too shallow to even consider.



My preference is for the birds with the deepest bodies (they tend to have greater body capacity) as long as they fall within the breeds standard description and they look balanced overall.

Hopefully this has given you a better understanding of what body capacity is and how to go about determining if your potential breeders have it or not.

One final thing we need to cover is, when to evaluate birds for body capacity. Here's what works for me. I like to do a first evaluation at ten weeks of age. I will grow out those I've decided best meet my breeding goals. I will do my final evaluation a bit closer to maturity at around twenty to twenty-two weeks of age.