Feed Restriction

Dr. Karl Frank

Do you ever look at the city pigeons? Perhaps feel sorry for them for having such a harsh life compared to our pampered racing pigeons?

And yet, you must have been surprised occasionally by the condition of some of these "Nature's Pigeons". Some of these cocks are literally glistening with their iridescent necks during a courtship when my own pampered birds with a full feed trough in front of them are sitting there on their perches like balls of feathers. It is in times like these that I know that mother nature needs to teach me much more. I now think that pigeons are healthier when feed is sufficient for their requirements but not in excess. Pigeons like these will always be looking for some more feed and come flying for their daily meal. Have a look at the guy in the feed pail.

I just read an article in a November edition of "Die Brieftaube" in which the author expresses his opinion that the birds did not get enough feed the night before when they come flying in the morning, and yet I think the opposite. I think that the birds were overfed if they are just sitting there when I come with the feed. They should be happy to see me and fly about the loft. Yet, even I get close to feeding them 50 grams per day during the very cold winter up here. Perhaps that is too much or is a sign of some deficiency of vitamin B12, for example.

I came across a web page of the Wisconsin Regional Primate Research Center at http://whyfiles.org/057aging/lo_cal2.html and read:

"What about their minds?

It's well documented that aging rats on caloric restriction can learn mazes faster than free-feeding rats."

I would suspect that the reason for this may be the developing atherosclerosis in the rats fed ad libitum and its delayed development in rats on a restricted diet. . "Feeding Secrets" are told by a veterinary clinic and are illustrated by a 14 year study on Labradors.

A very detailed study 1 shows that intestinal nutrient transport is greatly increased in animals on caloric restriction and suggests that their intestine has the potential to absorb nutrients at almost two-fold the rate than mice fed ad libitum.

Dr. George Roth of the the US National Institute on Aging points out that mice and rats live longer and healthier lives on a restricted diet as compared to those living on a diet ad libitum.

Dr. Donald Ingrim studied monkeys and found that monkeys fed a resticted diet do learn mazes better into old age than the fully fed monkeys of the same species, suggesting that monkeys fed a restricted diet do not age as quickly as their brethren fed ad libitum.

Many studies involving feed restriction have thus been done in mice or rats and almost all of them conclude that feed restriction has many positive effects. In one of these studies, cardiac, renal, and central nervous system pathologies were significantly inhibited by dietary restriction (DR), as were bone degeneration, inflammation, hyperplasia, amyloid induction, and atrophy of secretory organs. 2

A study on fruit flies concluded that feed restriction in these insects has only negative effects and it must therefore be asked how relevant the studies on feed restriction involving mice are to birds. Broilers in one study were able to recover from mild feed restriction, and there was always an associated reduction in mortality.3

Another study with broilers showed mortality in the restricted-feed flocks was significantly lower than in the fully fed flocks aged from 3 to 7 wk. The economic performance with restriction feeding was better than that with full feeding as a result of improvements in viability and feed conversion rates. 4

It's understandable, therefore, that some fanciers would want to write "poison" on the feed tin

because ad libitum and excess feed appears to cause various diseases and shorten the life span of mice, rats, dogs, monkeys, chickens and very likely pigeons too. Let us remember in this context that performance pigeons, be they the flying tipplers or our racing pigeons, will feel no desire to exercise if fed ad libitum. They obviously do not feel as well on excess feed as they could on a restricted diet.

Still, good pigeon fanciers often worry about their birds not getting enough feed and this can easily be checked by giving the birds a bath: do they all jump eagerly into the bathtub? If so, rest assured that they are getting enough. A bird who does not feel well will not take a bath. Another way of checking it is to pick up some birds from the floor at feeding time and feel their weight. If one can't pick up any of them, they are probably getting fed too much. If they are too light or are too much into eating droppings, they are not getting enough. Increase their ration or check to make sure that their ration is not deficient in some required nutrient, deficiency of vitamin B12 coming to mind. Constant attention is required in order to make certain that they do are neither over- nor under-fed.

Many fanciers feed performance birds such as racing pigeons on a limited to full cycle. The birds are fed sparingly in the beginning of the week and the amount of feed is gradually increased toward the end of the week culminating on shipping day when they get a full trough. The observant fancier will notice how more readily his birds take to their exercise flights as the week progresses and the feed increases. This effect would be much more difficult to attain with feed in front of them all of the time or by giving them an insufficient amount.

The following is a conversation picked up at the Alberta Classic Discussions:

"Because we feed well as much as the birds need when moulting, they tend to put on a bit of weight. To bring them into breeding condition we lighten the feed, and give a little less for a week then we do not feed them at all for 5 days, in fact we do not go to the lofts. This happens the same with the widowhood cocks. Two reason one is they take no hurt because they live off their body fat, and the second is they have a good fall of down and once it starts it continues. We have done this for 25 years with no bad effects on the pigeons."
"For pigeons to hit form they need to throw out down feathers. This will continue right through the season throwing out the down feathers especially when a bird is in form. If you notice the day after a race, I do not mean a short race, there will be an abundance of down feathers where the bird is perched. This is partly due to the effort the pigeon has put in the race a certain amount of stress, home it comes is fed and recovers then it starts to throw out some down feathers. I would be a bit concerned if I did not see them. Also an unfit, over fed pigeon will not cast down feathers. Hence when the pigeons were deprived of their normal feed it caused a little stress and did the job required, i.e loss of weight and started the fall of the down, with no ill affects on the birds."
"Yes sometimes when a pigeon homes several days late from a race, it can hit form and the next morning after homing you will see a fall of down feathers. One thing this proves in many cases that the pigeon was not sent right the time when it failed but the race brought it on and did the pigeon a lot of good, hence, bringing it into the condition needed to win."
The following is a schedule adopted by many successful fanciers during the race season:
"Soup": 1 head of garlic + 1 onion + ½cup apple cider vinegar + 4 tbsp honey blender for 10 minutes.
Each bird gets always 30 gm feed per day. The fat mix consists of 66% peanuts and 34% hemp seed. (43% fat) The amount of fat mix offered depends on the expected distance of the race. Suppose that the next race will be from 520 km which can be flown in 520 minutes on a fast day. A bird requires 1 gm fat mix for every 10 minutes flying time which would be 52 gm. Subtract 12 gram for the fat in the regular mix which leaves 40 gm to be divided equally between Monday, Tuesday, Wednesday, and Thursday. On Friday the birds will get approximately 13 gm fat mix, the exact quantity depending on the the expected severity of the race.
Let's summarize:

Saturday: The birds return from the race.
AM: 10 gr pellets (birds need energy fast); Per 500 ml water: 3 tbsp dextrose + 1 tsp vinegar + 1 tsp honey; fresh grit and picksteen
PM: 10 gm depurative mix + 10 gm pellets; Per 500 ml water: 3 tbsp dextrose + 1 tsp vinegar + 1 tsp honey; fresh grit and picksteen
Sunday:
AM: 10 gm 50% pellets, 50% depurative mix
PM: 20 gm 50% pellets, 50% depurative mix
Monday:
AM: 10 gm mix; 2 tbsp "Soup" per l water;
PM: 10 gm mix + 10 gm fat mix; 2 tbsp "Soup" per l water;
Tuesday:
AM: 10 gm mix
PM: 10 gm mix (coated with wheat germ oil for longer races) + 10 gm fat mix
Wednesday:
AM: 10 gm mix + vitamins
PM: 10 gm mix (coated with wheat germ oil for longer races) + 10 gm fat mix + vitamins
Thursday:
AM: 10 gm (mix + 30 to 60% corn)(coated with oil) + vitamins
PM: 10 gm (mix + 50% corn)(coated with oil) + 10 gm fat mix; after this as much corn as they like. + vitamins
Friday:
4 hrs before basketing: approximately 13 gm fat mix, the exact quantity depending on the expected length of the race.
Birds kept on this schedule are said to be light and quite successful, especially during head wind races.

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