

MARCH

By Ken Solomon

"Maintenance vs. Productive Energy"

With the cold winter months of January and February gone, the pheasant may breathe a sigh of relief with March's warmer temperatures. In fact the birds need 34 percent less energy (metabolizable energy) to survive in March than in January. This is largely due to the fact that increasing day temperatures are approaching the lower end of the bird's thermoneutral zone. Within this temperature zone, the pheasant need not use energy to stay warm. The bird can keep warm by simply ruffling his feathers to increase their insulation value.

The pheasant's metabolizable energy (what it needs to eat and digest) is the sum of its maintenance energy and its productive energy needs. In January most of the bird's energy is maintenance energy as he tries to stay warm. Warmer temperatures in March and April allow more of what the bird eats to be used for production energy.

"First Signs of Spring"

Evidence of the upcoming reproductive season may be seen when the birds are still in their winter flocks. The first visible sign of sexual development is the enlarging wattles on the rooster's head. The testicles also begin to enlarge about the first of March. The usual March blizzard, or colder-than-average-March temperatures, will not slow the development of the testicles. Their growth requires only a small portion of the rooster's productive energy, 0.23 kcal per day, or less than one percent of the rooster's total energy needs. Severe cold weather in March may cause the rooster to lose body weight, but will not slow testicle growth.....to be able to breed this spring is most important.

Feeling the urges of spring, the rooster is no longer content to be crowded with other roosters. In late March the rooster flocks and the hen flocks break up, and birds scatter. A rooster may move up to 10 miles from his winter area, but generally moves less than 2 miles. An adult rooster moves the least distance, while the juvenile hen the greatest distance. Such varied distances spread the birds into all possible nesting areas.

"Rooster and Hen Weights"

When the flocks break up in March, the rooster is at his maximum weight of the year (1400 gm, 3.1 lbs). During a normal winter, he will gain weight through the winter to the March maximum. January and February temperatures though will determine if the rooster gains or loses weight during these months. The rooster will definitely begin losing weight in April as he displays to hens, fights other roosters, crows, and begins mating.

As with the rooster, the hen's weight may increase or decrease in January and February (averages 1090 gm) depending on temperatures. Unlike a rooster that reaches maximum

weight in March, the hen gains weight through April (1134 gm, 2.5 lbs). The hen has 30 extra days over the rooster to prepare for raising a family.

"Crowing Roosters"

The rooster's thoughts are turning towards spring. In March he begins crowing in earnest. He will stand with head held high, chest out, and wings flapping. He wants to entice hens and to establish a territory. The hens will pay him no attention until April, when she is will be ready to mate. His crowing activity will reach a maximum in late April, early May. Crowing activity starts well before sunrise, increases to a peak just before sunrise, then diminishes. The average rooster will crow every two minutes. Crowing roosters may be heard throughout the day, but mid-day is usually quiet. There is a flurry of crowing late afternoon and early evening, but it is not nearly as active as the sunrise activity. Many state game agencies monitor the number of crowing roosters each year to calculate a breeding population index.

"How Much Agriculture?"

The pheasant, an agricultural bird, likes grain farms that provide winter feed. When farming intensity increases, bird numbers decrease. At what intensity? Illinois noted a 30% increase in row crop acres from 1962-72, and a corresponding decrease in pheasants. South Dakota (SD) though, during the same years, noted a similar decrease in birds yet row crops actually declined 10%. SD noted that 50 years of increasing cattle numbers, along with an increase of grassland and alfalfa acres, contributed to their bird loss. More alfalfa meant more nests destroyed during mowing. Iowa (IA) though, with similar bird declines, found pasture acres decreasing and hay land acres remaining constant.

What is the answer? Nearly all states agree that farm size is the most important factor. SD saw a doubling of farm size from 1925-75. IA noted that with fewer farmsteads there is less winter cover. With larger fields, nesting decreases. Hens prefer to nest in 20-acre fields. Larger farms require larger, more efficient equipment. Harvesting machines that waste less grain leave less winter food. Larger fields are more easily treated chemically than mechanically. And chemicals effect chick survival.

"Late Maturing Alfalfa"

Do you have to replant or start an alfalfa field this spring? Consider planting a variety that matures a week or two later than usual. Why? Consider that alfalfa reaches peak nutritional value just prior to most hens hatching their nests. Alfalfa is the first, lush, green growth each spring, and hens will concentrate their nests in alfalfa fields. Unfortunately, up to 70% of the nests and 50% of the hens will be destroyed by the swather. If that alfalfa field matured a week after the peak pheasant hatch, its chick production would triple.

South Dakota State University found a couple pounds of an old-time alfalfa variety saved

by a seed-savers-bank. The few pounds will be grown in California to provide enough seed to evaluate its potential for farmer and pheasants. Once sufficient seed is available, test plots will be established to evaluate nutritional value and growth habits. It supposedly has the same initial rush of early spring growth as modern varieties, which would serve to attract the hens. First cutting also produces the same tonnage per acre. Seed production though is less. Evaluation is also needed to determine total production with numerous cuttings.

"Can't Age That Rooster"

February was the last month, since the embryo was put into the egg shell last spring, that you can determine a pheasant's age. So, if you find a road killed rooster in March there is no simple way to age it. Pheasants, even when developing in the egg, can be aged by days of development. Hatched chicks can be aged (in weeks) by comparing their body size to their hen's size. Young birds can also be aged from time of hatching through 25 weeks (November), using flight feather growth. When young birds are between 25 weeks (December) and 35 weeks old (February), you can only say if it is a young bird or an adult, by using the bursa length. From February to June, professional game managers can distinguish between young and adults by using a complicated relationship of the shortest flight feather shaft diameter to its length. After pheasants reach 12 months old (June), it can not be determined if they are 1, 2, or 3 years old.

"Nesting Grasses"

What is the preferred grass of nesting pheasants? Who knows? Often what grass works in your state does not grow well in another state, so the hen uses a different grass in that other state. But whether a hen uses brome, wheatgrass, timothy, fescue, switch grass, or native grasses is determined by the grass's growth habits. Hens would rather nest in fields that were not cut or grazed the previous year. They prefer a grass that can stand the winter snows well. In spring, hens actively seek idle grassy fields where the grass has not been crunched by snow. Sod grasses are often chosen over bunch grasses. Grasses that quickly (2-3 years) form a thick (2-3 inches) layer of dead litter will not be as attractive to hens as grasses that form the layer slowly (5-6 years). More hens will nest in a square field than in a rectangular field, and prefer a 20-acre field to anything smaller or larger.

"Feeders vs. Food Plots"

While both food plots and pheasant feeders have a place in keeping that hen fat through the winter cold, food plots are preferred. Feeders will concentrate a large number of birds in a very small area. This makes hunting easier for predators, and may assist the spread of diseases. Whereas a food plot will spread the birds over a larger area. If well designed, a food plot also provides good cover from winter winds and predators. Sometimes birds will choose good winter shrub cover that is not near any crop land or food, so a feeder is needed. Be sure to place the feeder within the shrub cover for protection from predators, and to carefully place it so as not to get covered with snow. Remember to fill the feeder repeatedly, as once birds start relying on your manual labor,

you can not stop ... and with deep snow it is manual labor.

What can pheasants be eating this time of year? It has been 6 months since last fall's crop harvest. A new crop of weed seeds won't be available for 4 or 5 months. Juicy insects are still 2 to 3 months away. Is there anything out there to eat? Obviously there is or your birds would be dead now. The pheasant is an agricultural bird, and even at this barren time of year, they still show a preference for farm crops. In March, over 80% of their diet is farm crops, with corn being number one. Less corn is consumed now than was during last year's corn harvest (Oct-Dec), but the difference is made up by increased consumption of wheat, barley, and oats. This change to small grains is probably due to less corn being available, and the birds having to eat the less desirable small grain seeds.

In March only a small part (2%, compared to October's 17%) of the pheasant's diet is weed seeds. Insects make up 4% (lowest of the year), consisting mainly of grasshopper parts and eggs. Green plants comprise 8% of their food (highest for the year). Do the plants provide elements essential to the upcoming breeding season, or are they just to keep the bird full until other foods are available? Unknown!