

Dust in the Pigeon Loft

By R. Rowe

It is well known that some pigeon fanciers become sick as a result of dust in the pigeon loft, and have to give up pigeon racing for the sake of their health. This condition is commonly called Pigeon Fanciers Lung (P.F.L.). It has also caused the death of some fanciers.

It appears to me that it is coming more prevalent. If I am correct, then we should be more aware of what causes the condition and take steps to reduce our chances of it developing in our lungs. I believe that by doing so we will also create a better environment for our pigeons.

I believe P.F.L. is becoming more prevalent because of higher pollution levels in the air. This in combination with the dust in the loft is resulting in more fanciers developing the condition.

An article appeared in the English Pigeon Press in 1986 on Pigeon Fanciers Lung. It was written by a fancier who was also a research assistant to a doctor who studied the problem at an asthma research unit.

The article states that the lung tries to defend itself against foreign particles (dust) with special cells called phagocytes. They engulf the particles and break them down. The broken down particles then pass through the lung tissue into the blood stream and are extracted from the blood along with other waste products of the body.

It was found that the ingredient mainly responsible for P.F.L. is an antibody

produced in the pigeons gut and excreted in the droppings.

If the phagocytes in the lungs are outnumbered, antibodies are called in to attack the foreign particles. Surrounding tissue becomes damaged and by-products are released causing the body to exhibit flu-like symptoms and the health of the fanciers suffers. The longer the situation continues, the greater will be the damage to the lung tissue.

It was also found that other fanciers suffered from asthmatic or hayfever like symptoms. Some of the symptoms were tightness of chest, running eyes and nose, and sneezing. So it appears that the health of some other fanciers is also affected to a lesser degree than those who develop P.F.L.

A number of floor dressings were tested during the research and woodchips or sawdust with lime was the best. Sand was the next best and woodchips or sawdust without lime was third. Floors with no dressing were the worst. Probably because the dust particles have nowhere to get trapped,

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and are easily lifted into the air each time pigeons flap their wings.

I would suggest that a better type of floor (which was not tested in the research) would be one that allows the dust to drop through underneath the loft. I have a floor of this type in my stock loft, and intend using it in my new race loft.

It has a strip of wire mesh, about 400mm wide (16 inches), across the floor joists underneath the perches, and 75mm (3 inch) wide boards on the remainder of the floor with 15mm (5/8 inch) gaps between each board.

Most of the droppings, dust, and feathers drop through underneath the floor and the loft is very free of dust. Droppings on the floor boards dry out quickly due to better air circulation, and it requires a lot less work to keep clean.

There are floors along similar lines using metal mesh. These may be more expensive, and some required more support than the boards to prevent the mesh sagging when walked on. The metal mesh floors need to be reasonable height above ground level to prevent the disturbance of dust when pigeons flap their wings. The floors using boards with gaps between need not be as high, as most of the air disturbance does not get through the boards.

Does this dust also affect our pigeons? I believe it does.

Research has been carried out by the Hebrew University of Jerusalem, on the effects of negative and positive ions on the respiratory system of chickens. The reason for the research was to find a way to reduce respiratory distress in chickens which is caused by dust particles and bacteria in the air.

Three identical sheds were used in the

research with the same number of chickens in each shed. One shed had the air enriched with negative ions; another shed had the air enriched with positive ions. In the third shed the air was left natural.

Negative ions are negatively charged air molecules, and positive ions are positively charged air molecules. These ions attach themselves to dust particles and bacteria floating in the air causing them to become charged. When these charged dust particles come in contact with any surface that is uncharged they will stick to it, thus reducing considerably the amount of dust and bacteria in the air.

After eight weeks the trachea of a number of chickens from each shed were inspected under an electron microscope. The trachea is the air passage leading to the lungs.

The trachea of the chickens from the shed left natural had many bacterial growths and a considerable amount of mucus on the surface. The trachea of the chickens from the shed with positive ions



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had no bacterial growths but there was significantly more mucus on the surface. The trachea from the chickens in the shed with negative ions showed no bacterial growths and no mucus on the surface.

This information was given to me by a friend who is a Veterinary surgeon. He told me that the purpose of this mucus is to catch foreign particles and reduce the number entering the lungs. It also has an antiseptic effect on the bacteria that are caught. The more dust there is in the air, the greater will be the amount of mucus discharged by the mucous glands. He also said that pigeons would be affected by dust the same as chickens, and that these foreign particles are eliminated from the lungs by the same method as in humans.

If there is a lot of mucus in the trachea, this can result in some mucus getting into the lungs. This will cause reduced lung efficiency because some of the lung tissue surface will be covered by the mucus, preventing oxygen passing into the blood stream. Any dust in the lungs that is being attacked by Phagocytes and antibodies will also further reduce the efficiency of the lungs. This reduced efficiency will adversely affect the performances of racing pigeons to some degree.

Some fanciers give their pigeons antibiotics every few weeks during the racing season to improve their pigeons performances. This has the effect of cleaning up the trachea and lungs to enable them to work more efficiently. Many Doctors and Vets are against this type of misuse of antibiotics because it results in strains of bacteria that are resistant to antibiotics. These resistant strains of bacteria can be a health hazard

to both pigeons and humans.

Not all bacteria are harmful to pigeons. Some have a symbiotic relationship with their host. That means they have a mutually beneficial relationship. Some bacteria produce vitamins which are used by the host. Others complete the breakdown of food in the bowel.

These useful bacteria are also killed by antibiotics. Anyone who has taken antibiotics may have noticed that they suffered from flatulence afterwards. This is the result of the bacteria in the bowel being killed. Eating natural yoghurt will replace the bacteria and cure the problem.

The development of new antibiotics to kill these resistant strains of bacteria is both difficult and costly. Because of this and the possible risk to health mentioned previously, antibiotics should only be given when absolutely necessary.

If we design our lofts to minimize dust in the air, and also install negative ion generators to further reduce dust and bacteria, there is no need to give pigeons antibiotics because we are achieving a similar result. It will not only be beneficial to our pigeons and their performances, but it will also be beneficial to our own health. It should reduce the need for some pigeon fanciers to give up pigeons due to P.F.L., and improve the health of those fanciers affected to a lesser extent.

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THIS IS YOUR LIFE

Jim Ligertwood W.A.

Jim Ligertwood is a very well known and respected flier on the West Coast of Australia, flying from his loft in the inner Perth suburb of Floreat Park. Born in 1917, Jim took up the sport of pigeon flying mainly as a result of his elder brother Mick who raced pigeons from the family home in Leederville, another of Perth's old established inner suburbs. Mick, eleven years Jim's senior, would often leave the feeding and exercising of the birds to Jim when he was at work or at the football. It was one such occasion when brother Mick was at the football that a bird arrived home from a race a lot earlier than expected and this gave Jim his first opportunity to clock a bird which he duly did. At the tender age of nine years, the young tyro could not contain his curiosity for long so off he went to visit the other fliers in his immediate area to see how his time compared. To his delight he found his nearest rival was about one hour later than his time and thus it was a very excited young fellow that told his brother when he finally arrived home from the football of their good fortune. The excitement was short lived however, for on examination, the bird was found *not* to be the "FEATHERED PHAR LAP" of Leederville as first thought, but simply a lazy bird from the previous week's race. This setback obviously did not deter the young enthusiast, for Jim went on to clock many hundreds of pigeons over the next sixty five years and, unlike his first clock bird, a very high percentage of them were in the prize money.

Some years after this incident Mick

stopped keeping birds and the family home was without a loft for a number of years. It was during this period that Jim took up bicycle racing, a sport that he proved to be very good at, and one which became a lifetime interest. His participation was both as a rider in his younger days and then as an official in later years holding numerous positions, including that of state secretary of the Western Australian Amateur Cyclists Union. He was also one of the main instigators of the formation of the veterans competition in which he rode in his latter years, again with considerable success.

It was through his association with the late Jack Burge in 1934 that Jim again became involved with pigeons. He built



*Jim Ligertwood,
combining his two sports.*