

## **Bovine Tuberculosis and Other Deadly Gifts From Our Animal Friends**

*A series by William G. Winter, DVM*

### **BOVINE TB - PART II**

On February 28th of last year, a USDA inspector working in a slaughterhouse in Wisconsin was chilled by what he saw in a lymph node the carcass of a 5 year old Minnesota cow. It was something that he figured he would never see in his lifetime as a meat inspector. Tests on the tissue of the condemned cow confirmed the suspicion, and later that day, word went out that for the first time in 34 years the dreaded *Mycobacterium tuberculosis* has been found in cattle from the state of Minnesota.

By July, 18 herds in the Iron Range region of northwestern Minnesota were under quarantine as well as 14 herds in Iowa, Kansas, Nebraska and South Dakota because they contained cattle that may have had fence-line contact. Minnesota officials were nervous and therefore very eager to make the right decisive moves. They were all too aware of what happened following the 1994 outbreak of bovine TB in Michigan, an incident that has cost farmers an estimated \$156 million in cattle sales. Additionally, the state had spent over \$100 million in eradication costs, of that \$58 million at the diagnostic laboratory and about \$35 million on the destruction of the white-tail deer population, the animal blamed for the outbreak. "At least we don't have the problem with our Minnesota deer" proclaimed Board of Animal Health veterinarian Bill Hartmann in early December of 2005, this statement appearing in the local newspapers almost exactly 2 weeks before the first case of TB showed up in a Minnesota Iron Range wild deer.

By this time the original herd, which consisted of over 1000 Angus-Tarentaise cattle, had been destroyed. To be on the safe side, another 1000 cattle from neighboring farms were also killed. None of the cattle showed any signs of being sick, but the tell-tale swelling from the tuberculin test sites of the reactor animals determined the fate of the entire herd. The Minneapolis Star and Tribune informed us that in Michigan TB had "turned up in deer and spread to cattle nearby" and "deer could spread the disease to healthy cattle". The DNR, while reminding hunters to use gloves when gutting their deer, opened season on does, their first step in their plan to begin the population reduction. No one bothered to look any deeper into the causation of the problem.

Meanwhile, a similar tragedy was beginning to unfold in the beautiful pastures of western England, this time on the farm of none other than Mark Purdey, dairy farmer, famed eco-detective and the very animal health specialist who has guided other researchers towards understanding the causation of prion encephalopathies of man and beast (BSE). For this was the day in June that the dreaded inspectors had come to check the Purdey herd for any reaction to the tuberculin tests injected three days earlier. The vet was shocked and broke out into a sweat when he exclaimed to Mark that he had a "reactor". Then another, and another, then several more. How could this be in an *organic* herd, a herd of impeccable standards of sustainable farming? This was something that Mark had assumed would always keep him safe from infectious disease as it had from

Foot and Mouth and BSE. As he began to fill out the myriad of government forms that would seal the fate of his beloved herd, Mark began to try to make some sense out of all this, knowing all the while his life was about to change in drastic ways. A ruthless government-mandated culling was about to begin, his surviving herd soon to be locked hopelessly in mandated movement restrictions and red tape. His herd now becoming part of the crushing operation that is destroying what is left of small farming operations in the UK.

To make matters worse, ever since 1997 the British government has blamed wild life as the “source” of the tuberculosis and specifically the badger. A massive eradication program has been in place since that time, and, just as the meat and bonemeal “cause” of BSE was adopted (without scientific backing) and cemented as the universal causation, virtually all efforts were focused on badger eradication, to the extent of ceasing virtually all further research into other potential causes.

## THE SEEDS OF TB

Historical studies of the epidemiological aspects of TB, which go back since the Iron Age or before, show that the disease has always hit the hardest in populations who are nutritionally impoverished in some way. Typically slum-dwellers forced to breathe industrially polluted air 24 hours a day are the worst, also poor steel-workers living and working in pollution, and another group now, the AIDS victims whose immune systems are terribly compromised and who quite commonly develop TB as a secondary disease. We also know that while the TB organism is virtually endemic all over the world, there have been relatively few major outbreaks around the world. The thought comes to mind that a specific “anti-TB” component of the immune system may have become disrupted in infected individuals.

## THE FIRST BIT OF DETECTIVE WORK

The soul searching that Mark Purdey had done unleashed the first clue to unravel the mystery of why his herd had suddenly become vulnerable after surviving disease-free for so many decades. The recent economic crisis in UK agriculture had rendered him financially incapable of taking care of his soil in recent years. Cost-cutting efforts stopped the annual application of lime as well as his Cornish calcified seaweed extract amendments. This, especially coupled with a freakish increase in winter rainfall across the western parts of the island not to mention increased acid rain had *acidified his farm*. His soil pH had dropped from above 6 to a pH of 5 over the last 3 years. Scientific studies show that, in addition to wreaking havoc with the overall crop fertility, acidic soils are directly related to increased mycobacteria problems.

## A CASCADE EFFECT

In summary here is what happens:

- ~Acidification of the topsoil leads to excessive accumulations of *available iron*
- ~This is magnified when soil iron is already high and if rainfall is high

- ~ Note that affected Minnesota herds were all in the “Iron Range”-iron mining country
- ~Additionally, iron was mined in abundance throughout western UK
- ~ Mark’s soil iron levels increased to 378 mg/kg from 143 mg/kg three years before, many neighboring farms are into 4 digit numbers.

~Extensive research shows that high levels of iron are an *essential prerequisite* for Mycobacteria to proliferate, survive and create pathology within the mammalian body, this is true for all strains including both tuberculosis and paratuberculosis.

~Mycobacteria “hijack” the iron from the host’s own supplies incorporating it in the bacterial wall and eventually depriving the victim of iron thus causing the classic anemia that is associated with chronic TB.

~Additionally, the theft of the iron causes the body of the host to lose it’s ability to make the iron-binding activators for the killer T lymphocytes, thus disabling the immune system. This is why individuals with nutritional deficiencies or AIDS toxicity have even fewer T lymphocytes.

~Other IRON-MONGER PATHOGENS, as they are called, and who share the identical mechanism include Clostridium botulinum (implicated in Grass Sickness of horses), Leprosy, HIV, Candida, Listeria, Salmonella, Malaria and many others. Dr. Eugene Weinberg, of Indiana University, has exposed numerous protozoa, viruses, fungi and bacteria that, like criminals on crack or meth, become lethal killers once they have had their iron shot. Even relatively benign organisms can go destructively crazy on high iron. His scientific research has also delineated how the iron-loading destroys delicate immune protection.

~The commonly used wormer LEVAMISOLE is an anti-lactoferrin insecticide which initially raises lactoferrin, but with continued exposure causes a down-regulation of lactoferrin bringing about a marked reduction in the levels of immunity to TB.

~Numerous environmental influences are now being discovered that produce exactly the same end effect as the elevated iron levels with a resultant increase in TB.

#### FLAWS IN THE GOVERNMENT MODEL OF DISEASE ERADICATION

As pointed out in the new book “Grass-The Forgiveness of Nature” by Charles Waters, the “eradication” of the organism, or of infected individuals, is not the cure for such ubiquitous diseases. In discussing Brucellosis (another iron-related pathogen) he quotes soil scientist Dr. William Albrecht who said that “Infectious Brucella abortus is about as infectious as a stomach ache”. He was referring to the farmers who “*fed* brucellosis out of their herd before the eradication sharpshooters got to them”. Charles Waters states that eradication is the “banner of the opportunist, the boast of the simple-minded, or the mechanism of the politically dishonest”. Truer words were never spoken. Mark Purdey goes on to call “this totalitarian science that is both derelict and defunct of academic integrity...the reductionist mindset of bygone times, the uncivilized world of

blanket slaughtering and badly managed 'Badgerogeddons' that are naively aimed at achieving the impossible-to annihilate the TB agent from the face of the earth."

Additionally, and perhaps more heinous, Mark Purdey reminds us of the dark shadow behind all testing that measures the immune system's ability to react to an injection of a substance like tuberculinum. It's very likely that this program annihilates the resistant animals thus "culling the genetically robust individuals that we really needed to be keeping as breeding stock for future generations". Dr. Schmid points out in *The Untold Story of Milk* that all these asymptomatic positive testers are usually the best producers in the herd, and, as far back as 1933, the *British Medical Journal* reported that they almost never excrete the bacillus. Dr. Schmid tells the story of the Iowa girl, Marian Snydegaard who, in the same year, was chosen as "The Healthiest Girl in the United States" and then the embarrassment that arose when it was revealed that the majority of their dairy herd had tested positive for TB. This girl had been drinking their raw milk every day of her life!

## THE GOOD NEWS

Since the survival of the Iron Monger organisms in the body are directly related to the levels of iron, this leaves a *golden opportunity for prevention and cure* of the disease. Starving the organism of iron is the first objective. Consider these amazing studies:

~Tests across Michigan proved that merely liming the soils caused a 10X reduction in TB infection. The positive results extend to a myriad of other parasitic infections. The obvious next step is to realize that all livestock producers need to be aware of their soil minerals and pH.

~Livestock farmers who limed their soils were shown to have gotten a 17X return on the cost of re-mineralization!

~TB infected animals given the iron-chelating lactoferrin had a 100X reduction in the incidence of the disease.

~The EPA has conducted successful trials of spraying the open environment with iron micro-crystals to chelate and divert the disease pathogens.

~Lecturer and livestock consultant Jerry Brunetti has "rediscovered" the works of the "Miracle of the Ozarks" Dr Ira Allison who successfully treated iron-monger diseases such as brucellosis in thousands of patients using simple supplementation of the trace minerals Manganese, Copper, Cobalt, Zinc, and Iodine. (these studies are written about in detail in the book "Grass-The Forgiveness of Nature").

## UNTIL YOUR SOIL AND PASTURE IS HEALED....

~Hydrogen Peroxide therapy. Not much is more simple than adding 8 oz. of 35% food grade H<sub>2</sub>O<sub>2</sub> per 1000 gallons of water.

~Agri-Dynamics, under the direction of Jerry Brunetti, has been using what he calls “Band-Aids” to achieve nutritional rescue during the transition. He always points out how much cheaper it is to “grow your own minerals than it is to buy them” but, with livestock who are critically near infection, culling or herd eradication there is nothing cheaper than mineral insurance. Particularly with dairy cattle, the farmer must be in control of what he calls the Big Three Killers, high nitrogen (ammonia), mycotoxin mold, and acidosis.

~All farmers who have “at-risk” livestock for TB should consider the following as nutrition insurance, a good salt source (such as Redman’s), kelp (such as Thorvin), detoxifying and mineralizing clay (such as Dyna-Min) and the particularly stressed individuals should be put on a course of digestive factors, blood builders, immune tonics, vitamins and minerals (all of which can be found in a product like Hemocell 100).

~Mark Purdey reports that just in the last few months he has been giving just such a mineral-protein chelating compound to his cattle. The dramatic results show that 4 out of 5 of the inconclusive testers have already reverted to TB-free status, and the fifth one retained her inconclusive status. In this pilot study, a 6th animal that was not supplemented went on to full-reactor status.

~And, even though it is obvious, all herbivores, swine and poultry should have access to fresh, clean pasture as well as the oxygenated-air that accompanies it. It doesn’t get any simpler than that.

So, it looks like all this proves what Wendell Berry once said, “expensive solutions to agricultural problems are almost always wrong”. To be continued...

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*In Part III on Bovine TB we will discuss the human implications of the disease as well as what can be done to insure safety and health from consuming animal products as well as maintaining good health and immunity when working around livestock and wildlife.*  
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