Here's the answer
TICK FEVER

I am experiencing trouble with young pullets losing the use of their legs, with accompanying form of diarrhoea. Most of the affected birds have dark coloured combs and die within two days of showing the first symptoms of being diseased. I have searched for tick but am unable to locate any trace of them. Can you assist me in this matter?

The information contained in your letter suggests that your pullets are affected with Tick Fever.

This disease is caused by a parasitic spirochaete which is transmitted by insect ticks and poultry red mite to most varieties of poultry. Birds affected with tick fever show a loss of appetite and feverishness accompanied by thirst. The comb shrinks and becomes dark at the tips. The birds usually lose control of their legs and pass a diarrhoea which is usually greenish and sometimes whitish in colour. Death usually occurs within a few days but should the bird recover it has a lifelong immunity against further attacks of the disease.

When tick is suspected a thorough examination should be made of all the cracks and crevices in the timber of the fowl house, perches, nest boxes, etc. Should you locate the tick, adopt the following eradication procedure:

Spray under strong pressure all cracks and joints in the woodwork, all laps in the corrugated iron or asbestos sheets, and all other possible sheltering places in the fowl house with one of the following four preparations:

(1) 5 gals. creosote.
    5 gals. dieselene.
    1 gal. liquid sheep dip.

(2) 2 gals. creosote.
    2 gals. crude oil.
    1 gal. kerosene (power).

(3) 10 gals. dieselene.
    1 gal. liquid sheep dip.

(4) Kerosene Emulsion—
    ½ lb. soap.
    1 gal. water.
    2 gals. kerosene.

Prepare the kerosene emulsion by dissolving the soap in boiling water. Remove from fire and add kerosene at the same time agitating the solution for at least 10 minutes.

Preparations (1) and (2) are recommended.

Having treated the shed, the surrounding area should be thoroughly cleaned up and all rubbish burnt. Sprayings should be made at fortnightly intervals until all traces of tick have disappeared.
'HORMEX'

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Spraying with Hormex kills weeds before they can steal precious soil, water and fertiliser . . . increasing your yield by 6 bushels per acre—or MORE.

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HORMEX is harmless to stock . . . is non corrosive, non poisonous
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\[ x = \sqrt{\frac{NUTZ^2 (X^2 - Y^2)}{UYZ (Y^2)}} \]

X - 1 \( TR^2 \)

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Every poultry shed on the farm should be vacant for at least a few days once every year and during these days the shed should be thoroughly cleaned and sprayed as a precautionary measure against tick and poultry red mite. To facilitate the spray soaking into the woodwork, the spraying should be carried out early in the morning on a hot day.

Should it be necessary to spray a shed while it is still occupied, the birds should be confined to a shady yard during the day on which the spraying is made, as burning of the birds can easily occur if they are allowed to brush their combs, etc., against the woodwork.* It is not necessary to spray plain surfaces of the building or the floor, and pools of creosote should certainly not be left on the floor.

*B. D. pes which may adhere to the underside of the perches are often the cause of burning where low perches are installed.

BROODERS AND CARE OF PULLETS

Would you please advise me as to the following:

1. The correct temperature of a chicken brooder and where the temperature should be taken.

2. The best method of treating young pullets that are intended for the intensive laying shed under the deep litter system—from the time they leave the brooder house until they are intensively housed.

1. The temperature of a chicken brooder should be taken at litter level, the thermometer being placed half way between the brooder lamp and outer edge of the brooder. This temperature should be maintained at 95°F. for the first three weeks.

During inclement weather it is customary to keep chickens confined indoors for the first two weeks and when they are allowed out in the run at a fortnight of age there is a possibility of them becoming chilled. Should this happen it is important that they are able to scamper back to a brooder which is providing an abundance of heat. A brooder which has a temperature of 95°F. will enable the chickens to warm up quickly and so prevent mortalities through chilling. The temperature is gradually reduced after the first three weeks to 75°F. at five weeks, at which time the brooder can be dispensed with. Immediately the birds are deprived of artificial heat it is necessary that they be made to camp each evening on a perching platform. This platform teaches the chickens to perch at an early age, and this is a very important point in raising chickens successfully.

2. When the chickens are taken from the brooder house it is recommended that they be given free range, preferably on good succulent pastures. The rearing ground must be reserved for the young stock, and must be kept free of stock from about December until next year's chickens are ready to be housed in the rearing sheds. It is desirable to cultivate the ground, and a greenfeed crop such as rape or oats should be sown six weeks prior to introducing the young stock to open range conditions. Where natural pasture exists this will serve admirably.

Growing stock must be safeguarded against diseases and parasites which retard their development and subsequent egg production. Thus it is essential to adopt the following programme for young stock:

Deworm at 10 and 18 weeks of age, respectively.

Vaccinate against chicken pox at 12 weeks of age.

The changeover from a grower's mash to a laying mash should be made as soon as the first egg is laid. The extra protein and minerals of the laying mash assist the bird to produce good quality eggs early in its laying career. When the birds are transferred to the laying sheds about two weeks before they commence to lay, they should be graded for size and housed accordingly.
ARE YOU GETTING THE MOST FROM YOUR DAIRY HERD?

(OR IS MASTITIS REDUCING YOUR OUTPUT?)

YOU SHOULD KNOW THIS ABOUT PENIJEC AND MASTITIS

Penijec is made in TWO STRENGTHS because - broadly speaking MASTITIS occurs in TWO FORMS.

1. Common (Streptococcal) Mastitis
2. Stubborn (Staphylococcal) Mastitis

Diagnosis is difficult. Your animal may have both infections. To be sure, HIT HARD with a first dose of strong PENIJEC (110).

WE RECOMMEND:

First day - Penijec 110 followed by daily injections of Penijec 30 until quarter is normal. Animals with past history of stubborn MASTITIS – continued daily treatment with PENIJEC 110 until quarter is normal. Best results are obtained when treatment is commenced without delay.

Be sure always to keep PENIJEC supplies on hand.

AUSTRALIA’S LARGEST SELLING MASTITIS TREATMENT

Please mention the “Journal of Agriculture, W.A.,” when writing to advertisers.
GINGIN GREENSANDS AND SALT WATER

Having read that the Gingin greensands had value as a water-softening agent, I wondered if they would be suitable for treating salt water to make it suitable for stock. Many bores and wells in my district yield water that is too salt for stock, but if the salt content could be reduced, such wells and bores would provide a welcome addition to our farm water supplies.

Your letter was referred to an officer of the Government Chemical Laboratories who stated that the greensands will not reduce the total salt content of water and cannot be used for "purifying" salt or brackish water. He writes:

"Natural waters contain a number of different salts and in the agricultural areas of W.A. about three-quarters of the total "salts" is ordinary common salt (sodium chloride). The other quarter consists of such salts as calcium sulphate (gypsum), magnesium sulphate (Epsom salts), sodium sulphate (Glauber's salts) and bicarbonate of soda, lime and magnesia. Normally the hardness of water is due to the calcium and magnesium salts and the greensand softens the water by removing the calcium and magnesium and replacing them by sodium, and thus there is no reduction in the total salts. After a time the greensand becomes exhausted by becoming saturated with calcium and magnesium to such an extent that it no longer removes sufficient calcium and magnesium to soften the water. The greensand is then regenerated by passing through it a concentrated solution of common salt (sodium chloride) when the calcium and magnesium pass from the greensand to the solution and the sodium passes from the solution to the greensand. After washing away the excess of salt solution the greensand can then soften a further quantity of water."

It will be gathered from the above that water softening does not remove salt, although it may be worth while to soften water in order to facilitate its use in the laundry and hot water system.

The use of water-softening equipment containing greensand will greatly improve water containing up to 70 grains of total salts per gallon. If the water contains between 70 and 150 grains it is doubtful whether the softening treatment would be worth while.

Any persons considering treatment of hard water would be well advised to send samples for analysis to the Government Chemical Laboratories, Perth, with a request for advice on treatment.

PHOTO-SENSITISATION OF PIGS

A number of young Tamworth pigs about two months old are suffering from disease which makes their ears very hard and sore, and in acute cases causes the ears to fall off. They have also gone off their food. I would appreciate some advice concerning this condition and also concerning methods of dealing with lice infestation of pigs.

From the description it would appear that your young pigs are affected with photo-sensitisation. In this condition lightly pigmented areas of skin become very sensitive to sunlight which causes severe inflammation of the skin and often the sloughing or shedding of the skin itself. Leaflet No. 844 which has been forwarded to you describes this condition in detail.

To cope with infestations of lice in pigs your first step would be to clean up the sties thoroughly and burn any bedding or other litter contained therein. Treat the walls of the pens with a good disinfectant and treat the pigs by using D.D.T. emulsion at a strength of 1 per cent. If purchasing the 20 per cent. emulsion, add 19 parts of water. Sump oil is commonly used to deal with lice, a trickle of oil being applied to the pigs' backs from head to tail, pre-
ferably during warm weather when it will spread thinly over the skin surface. An oil-soaked bag tied round a scratching post placed in the centre of the sty is another method of applying sump oil which has proved quite effective.

PULPY KIDNEY

Could you please supply some information on Pulpy Kidney as I think this disease has been the cause of deaths in my sheep flock during the year. Can the sheep be inoculated against it and if so at what time of the year should the treatment be applied.

Leaflet No. 656 entitled “Infectious Entero-toxaemia (Braxy-like disease, or Pulpy Kidney)” has been forwarded to you and you will find that this leaflet contains all the information you require.

You will note that the disease may be prevented by inoculation with enterotoxaemia vaccine and that it has been recommended that this operation should be carried out in April or May just prior to the advent of green feed.

Mortality from Pulpy Kidney is usually heaviest during the flush season and inoculation in April or May will ensure that the immunity is at its highest level during the period of greatest risk.

Inoculations may however be carried out at any period of the year and if you have not yet immunised your flock you would be well advised to do so. The immunity obtained from inoculations is effective for a period of about 12 months and inoculation needs to be repeated annually if losses from Pulpy Kidney are to be prevented.

LAMBS WITH PUSTULAR DERMATITIS

Is it possible for lambs to develop scabby mouths and sore inflamed eyes through the action of frosts. I have a few lambs with these symptoms and would appreciate some advice concerning the cause and treatment.

The symptoms you have described would suggest that your lambs are suffering from the condition known as Contagious Pustular Dermatitis or “Scabby Mouth” as it is commonly called.

This disease is infectious and is caused by a virus which gains entrance to the skin of the lips through small abrasions sustained when the animals are grazing on coarse rough feed. The virus is contained in the dry scabs and is able to survive in the soil for long periods.

The majority of cases recover spontaneously, and treatment is unnecessary. In severe cases, however, the scabs should be removed by bathing with warm water and soap, followed by the application of a 5 per cent. solution of bluestone (1 oz. to a pint of water) to the affected parts. This could be followed for the next few days with an ointment such as carbolised vaseline or zinc ointment.