Remedies for Health Problems of the Organic Laying Flock

A Compendium and Workbook of Management, Nutritional, Herbal, and Homeopathic Remedies

Compiled and Edited by Karma E. Glos

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INTRODUCTION

The inspiration for this manual came out of a frustration while trying to find natural health care techniques for my certified organic layer flock. I had at my disposal numerous excellent diagnostic guides for determining what ailed my flock, but very little practical information for treating them with non-conventional remedies. I pieced together information from old herbals and homeopathic materia medicas to develop remedies for my flock with herbs, foods, and homeopathy that I had readily available on my farm. This led me to think that perhaps other small organic flock owners were trying similar things that could be shared amongst us all. To obtain this information I surveyed other small producers in the northeast, studied numerous old and new publications, and scoured the Internet for the latest thoughts on natural layer healthcare.

The result is a compendium of this knowledge with room for the compilation of more information as it becomes available to you. You will not necessarily ever see some of these problems (i.e. Newcastle Disease) and others will most likely plague your flock repeatedly (i.e. lice). This compendium gives you a jumping off place to begin the development of your own healthcare practices for the specifics of your flock. It does, however, assume a certain level of organic management practices such as access to pasture, natural light, organic feed, and ample space for birds to carry out their natural behaviors. These practices provide the foundation of good bird health and immunity on which all herbal and homeopathic remedies depend.

<u>This manual is not intended to diagnose disease or other ailments.</u> There are several excellent diagnostic guides for this purpose and I fully recommend consulting them regularly. You may also find local extension help or vets for diagnosing more complicated illnesses.

GIVING HERBAL & HOMEOPATHIC REMEDIES

Herbs

Herbs may be given to hens in several different forms depending on what best suites the herb, the ailment, and the condition of the bird and/or flock. I have used the following herbal preparations and treatment methods on my own flock.

Dried Herbs, Roots, Seeds, and Fruits

- Grind or crush and mix directly with feed for whole flock treatment.
- Steep in boiling water as a tea and mix with drinking water for whole flock treatment.
- Crush herbs and form a small pill with water for treating individual birds.
- Mix herbs with hot water and apply externally with cotton bandages for a poultice.

Herbal Tinctures

- Dilute the appropriate number of drops in drinking water for whole flock treatment.
- Place drops directly in mouth for individual birds.

Fresh Herbs, Fruits, Vegetables, or Forages

- Offer safe herbs free choice hanging in bunches or placed on top of feeders.
- For dangerous or strong herbs chop finely and mix thoroughly into moistened feed so no bird eats too much.
- Offer forages (no buckwheat) free choice in hay nets, on the litter, or hanging in bunches.
- Offer fruits and vegetables free choice in small amounts avoiding spoiled, moldy, or potentially poisonous items (raw potatoes).
- For strong, purgative vegetables (garlic, onions) chop finely and incorporate into moist feed after a brief (12-24 hours)fast.

Dusts and Powders

- Powders such as Diatomaceous Earth and Pyrethrum should be used sparingly alone. Remember your hens have to breathe them.
- Always wear a dust mask when using powders.

• For dust baths mix DE with litter, sand, wood ashes, or soil to reduce irritation to the hen's lungs when dusting.

Homeopathy

There is a lot to be learned about homeopathy that I am not qualified to teach. However, I have used it successfully with poultry and have a few recommendations.

- Keep your remedies isolated in a cabinet specifically for them. Don't store them on the veterinary shelf in the barn next to the iodine.
- 30C potency can effectively be used unless otherwise noted.
- Buy the very small pellets if you can find them, they dissolve better in water. Or use liquid remedies.
- For treating the whole flock dissolve 2-3 dozen pellets in their drinking water or in water that is used to moisten their feed.
- Dr. Surjit S. Makker (<u>www.vethomopath.com</u>) recommends 20ml of remedy mixed with 8 liters of water for 100 birds. This medicated water should be shaken well and put in drinkers accordingly.
- For individual birds give them 2-3 pellets by mouth and keep them calm. It may also be given in the cloaca (vent) if it is moist.
- During homeopathic treatment keep the birds calm and reduce stress as much as possible. Expect a one-day drop in egg production.
- Be willing to wait 24 hours to allow the remedy to work. If there is not marked improvement after that, try something else.
- The successful use of homeopathic remedies requires keen observation of your birds, a well developed immune system, excellent overall management practices, and a willingness to carefully research the correct remedy.

HOW TO USE THIS COMPENDIUM

A compendium is a summary of a larger work or field of knowledge. The field of knowledge on alternative or traditional remedies for livestock is vast and complex including management, prevention, herbs, homeopathy, nutrition, acupuncture, massage, and many other elements. This compendium of laying hen ailments is a working manual for the natural management and treatment of common and not so common problems you may encounter in the raising of the laying chicken. It includes the diseases, parasites, and problems I encountered in my research on the natural rearing of chickens. Unfortunately in is neither exhaustive nor complete. In gleaning information from many different sources I often found no alternative remedies for certain diseases. These sections are left blank in order to provide you with a place for notes, references, or your own creative remedies as you develop or discover them. This manual is a work in progress for all of us. We all, as managers of organic laying flocks, have something to contribute to the development of progressive ways to prevent and treat what ails the hen.

The compendium is set up for quick reference and note taking. Keep it in the barn and keep track of other preventative measures or treatments you have tried. When I was able to find it I included information in the following categories. The remedies are recorded verbatim from the references so may sometimes seem vague. I am leaving some interpretation to the reader. When I found nothing I left it blank for you to fill in as your experience and knowledge grows.

The Ailment as it is most commonly referred to (i.e. Aspergillosis).

Other Names Alternative names used to describe this ailment. There is often a lot of confusion with common names, be sure you are using the same name as your diagnostic guide or vet.

Organism or Mechanism The scientific name of the bacteria, virus, fungus, or parasite that causes this ailment. Or the mechanism (i.e. sunshine) causing the problem.

Preventative Measures Includes any means I found to prevent the development of this disease or problem. Often many of them are used in concert.

Management Treatments These are treatments for the ailment that involve new or different management techniques, typically for the entire flock involving housing, range, or other aspects.

Physical Treatments These treatments involve physical manipulation of the bird, usually each individual bird.

Nutritional Treatments These are usually foods or feed changes for the entire flock. The foods may be immune supportive, purgative, cleansing, or fulfilling a nutritional deficiency.

Herbal Treatments These treatments involve the use of herbs, internally or externally, to support immunity, kill parasites, cleanse the system, or affect other changes.

Homeopathic Treatments These treatments use prepared homeopathic remedies to encourage the hen's own immune system to help itself. Generally remedies are given for the whole flock since the constitution of each individual bird can be difficult if not impossible to determine.

References Under any specific category all the information preceding the number in parentheses in attributed to the reference with that number. For example under Aspergillosis all the Preventative Measures listed are attributed to (16) which is listed under the references section as *Compendium of Animal Health & Welfare in Organic Farming*.

Aspergillosis

Other Names

brooder pneumonia, aspergillus

Organism or Mechanism

Aspergillus fumigatus, A. flavus, A. niger, A. glaucus, and A. terreus fungal spores

Preventative Measures

- Avoid conditions that promote fungal growth such as wet litter or moldy feeds
- Clean and disinfect equipment and air ducts regularly
- Frequently move feed troughs and water dispensers (16)

Management Treatments

- Provide dry, deep bedding
- Cull diseased birds (16)

Physical Treatments

• Oxine (2% chlorine dioxide) non-activated fogged in brooder (15)

Nutritional Treatments

Herbal Treatments

- Ant. Tartrate 30C once daily X 3 days
- **Drosera rotundfolia** 30C once daily X 3 days (20)

Botulism

Other Names

limber neck

Organism or Mechanism

Clostridium botulinum bacteria

Preventative Measures

• Do not feed spoiled or rotten feed

Management Treatments

• Remove source of poisoning (4)

Physical Treatments

- Squirt cool water into crop twice daily (4)
- Flush with molasses or Epsom salts
- Give oral fluid therapy with activated charcoal and bismuth (7)
- Flush birds with molasses (1 pint/5 gal water), Epsom salt (1 lb/15 lbs. feed or 1 lb/5 gal water for 1 day), or castor oil (1/2 oz/bird) (14)

Nutritional Treatments

Herbal Treatments

- Carbo veg. 30C for 1 dose
- Nux vomica 30C for 1 dose (20)

Broken Bones

Other Names

fractures

Organism or Mechanism

Blunt force trauma, falls, predators, other accidents

Preventative Measures

- Handle birds gently
- Do not allow children or dogs to chase birds

Management Treatments

• Remove the injured bird and treat separately.

Physical Treatments

- Bring the broken parts gently but firmly together, bind with bandages and hold in place with a couple of appropriate sized splints.
- Moisten the bandages frequently with a lotion of 1 part tincture of **Symphytum** mixed with 5 parts water (2)

Nutritional Treatments

Herbal Treatments

- Give one dose of **Aconite** (3 pellets) by mouth, then 6 pellets of **Hepar Sulph** in the drinking water after a week (2)
- Symphytum 30C once daily for 3 days or 6C daily for a week (20)

Bumblefoot

Other Names

lameness, foot lesions

Organism or Mechanism

Staphylococcus aureus bacteria infection of injured foot

Preventative Measures

- Keep dry litter and avoid high perches. (4)
- Do not keep poultry on excessively rocky/stony/flinty ground.
- Eliminate sharp objects.
- Ensure perches are well designed, i.e. beech hardwood circular perches with a flattened upper and lower surface.
- Feed hens a high oat content mash rather than crumbles (16)

Management Treatments

• Implement all preventative measures if you have not already.

Physical Treatments

- Wash foot, open abscess, squeeze out core, clean with hydrogen peroxide, and wrap with gauze. (4)
- Apply warm linseed meal poultice, lance wound, wash with hydrogen peroxide, and pack wound with gauze. (8)
- Apply tea tree oil to cracks. (17)
- Soak foot in Epsom salts. (17)

Nutritional Treatments

Herbal Treatments

- Sulphur
- Silicea 6C (7)
- Bathe foot in lotion of 1 part Calendula tincture to 5 parts water and bind up foot.
- Apply calendula cream (salve) to foot and keep bird on clean straw. Then give **Hepar sulph** or **Silicea** (2)

Campylobacteriosis

Other Names campylobacter hepatitis **Organism or Mechanism** Campylobactor fetus jejuni bacteria **Preventative Measures** • Control vectors. • Use competitive exclusion products such as Aviguard, Broilact probiotic (12) **Management Treatments** Add formic acid (calcium formate) to feed to ensure a low pH in the gut and control bacterial contamination of wet feed (2kg-4kg per ton) (12) **Physical Treatments Nutritional Treatments Herbal Treatments**

Homeopathic Treatments

• Gelsimium (20)

Cholera

Other Names

avian cholera, fowl cholera, avian pasteurellosis NOTIFIABLE

Organism or Mechanism

Pasturella multocida Gram-negative bacterium, Pasteurella Aviancide

Preventative Measures

- Purchase cholera free birds. (4)
- Prevent stress.
- Practice good management.
- Provide well-ventilated houses by judging the ventilation from the height at which it influences the birds, not necessarily from human height.
- Prevent rodent infestation since rats are a major disease reservoir and a source of infection.
- Reduce contact with cats and dogs. (16)

Management Treatments

- Isolate and dispose of flock. (4)
- Leave housing vacant for 3 mos. (4)
- Vaccinate flocks following an outbreak and thoroughly disinfect the premises. (16)

Physical Treatments

• Give pulverized mixture of 2oz. Capsicum, 2oz. Asafetida, 1 oz. Rhubarb, 6 oz. Spanish brown, and 2 oz. Flowers of sulphur at 1 tsp./2 quarts mash 2 X day (8)

Nutritional Treatments

• Feed parch corn, or parched cracked corn, almost to coffee-color as a supplement (2)

Herbal Treatments

- Dissolve 2 dozen to 1/2 vial of **Veratrum alb.** in drinking water or in water used to moisten feed for prevention or treatment.
- Also good are **Arsenicum** or **Arsenicum iod.** 3 (iodide of arsenic), mix 2 drams of pellets with 2 pounds of feed. (2)
- If hens have puffed faces, bright red color, and crouch give **Nux vomica**.
- If swelling of joints of legs and lameness give--Rhus tox, Sulphur.
- If difficult breathing and thick nasal discharge give--Calc flour+Hepar sulph, Kali bich.
- If greenish colored diarrhea--Pulsatilla, Sulphur; or combination of Calc Phos30+Ferum30+Kali sulph30, 5ml each in 16 liters of water for 100 birds, 4 times a day for 7 days (18)

Chronic Respiratory Disease

Other Names

CRD, air sac disease, airsacculitis

Organism or Mechanism

Mycoplasma gallisepticum bacteria

Preventative Measures

- Purchase Mycoplasma-free birds (only from NPIP participants).
- Practice good sanitation because it lasts on hands, clothes, and boots for several hours. (7)
- Avoid mixing poultry of different ages. (16)
- Avoid dust, chilling, and poor ventilation.
- Prevent rodent infestation.
- Prevent stress and ensure good nutrition. (16)

Management Treatments

- Provide warm, draft-free housing with proper ventilation.
- Move birds to a clean environment. (16)

Physical Treatments

Nutritional Treatments

Herbal Treatments

- If sneezing, coughing give--Antim trat, Belladona, Ars alb.
- If water from eyes give--Euphrasia, Arg nrt.
- If water from nose give--Allium cepa, Ars alb.
- If white diarrhea give--Calc carb.
- Combination remedy of **Thuja200+Nat sulf200+Carbo veg200+Bryonia200**, 5ml each in 8 liters of water for 100 birds for 3 days (18)

Coccidiosis

Other Names

Cocci

Organism or Mechanism

Eimeria tenella, E. necatrix, E. acervulina, E. maxina, E. praecox, E. mitis coccidial protozoan parasites

Preventative Measures

- Develop resistance in chicks (possibly through exposure to older birds or litter).
- Rotate pastures frequently.
- Keep litter dry and restrict access to droppings. (11)
- Give one clove of crushed garlic per chick. (1)
- Maintain vigilance for symptoms.
- Keep age groups separate.
- Ensure litter is dry but not dusty.
- Keep watering facilities away from litter.
- Ensure high standards of hygiene for personnel.
- Ensure good hygiene of feeders and drinkers.
- Keep raising level of drinks for growing chicks. (16)
- Administer *Paracox TM* vaccine at a rate of 0.1 ml per chicken in drinking water at 5-9 days old. (16)
- Use resistant breeds: White Leghorn, New Hampshire, Rhode Island Red (16)
- Give apple cider vinegar (1T/5 gal) in drinking water (17)

Management Treatments

- High temperatures (above 56 C), freezing, drying can kill oocysts, or ammonia based disinfectants. (12)
- Move poultry to new ground and heavily lime old ground, fumigate the houses by burning cayenne pepper or juniper powder (1)

Physical Treatments

• Give DE in feed (11);

Nutritional Treatments

- Give probiotics in feed. (11)
- Following a fast give a laxative diet with bran, molasses, and greens (chickweed, groundsel, rue, sow thistle, mustards, comfrey, lettuce, cresses, and grass seed.
- Give buttermilk to help expel worms. (1)
- Poultry fed corn-based diets have been shown to survive Coccidiosis better than those on wheat-based diets (16)

Herbal Treatments

- Fast for 1 day on warm water then give drops of senna brew (1 ½ pods soaked in 1 dessertspoon of water with a few grains of powdered ginger. (1)
- Give dried leaves of *Artemisia annua* as an in-feed supplement. (16)

- Give Mercurius cor. Or Ipecac. In clean drinking water. (2)
- If birds are listless with bloody droppings give—Merc cor, Ipecac.
- If pale comb and lack of appetite give—Chellidonium, Nux vomica.
- If head remedy needed give—Merc sol.
- If birds are emaciated with diarrhea give—Aconite, Merc, Podo, or Ipecac.
- Combination remedy of **Merc cor30+Nux vomica30+Sulphur30**, 5ml each in 8 liters of water for 100 birds for 3 days. (18)

Conjunctivitis

Other Names

ammonia blindness

Organism or Mechanism

ammonia fumes

Preventative Measures

- Provide good ventilation and dry litter. (4)
- If you can smell ammonia, there is too much. (7)

Management Treatments

- Remove wet or soiled bedding and provide dry, dust-free bedding.
- Adjust carbon/nitrogen ratio in composting litter.
- Increase ventilation and access to the outdoors. (17)

Physical Treatments

• Apply Euphrasia tea or eydrops (NOT TINCTURE) to eyes. (20)

Nutritional Treatments

• Give Vitamin A

Herbal Treatments

• Euphrasia tea or eyedrops (NOT TINCTURE) applied topically (20)

- Euphrasia 6C (7)
- If yellow discharge try **Pulsatilla** 30C (20)

Crop Impaction

Other Names

crop binding, crop bound, swelled crop

Organism or Mechanism

impacted or plugged crop

Preventative Measures

- Give plenty of fresh water. (4)
- Avoid long, stemmy grass. (7)
- Since the gizzard if poorly developed in very young chicks, introduce grass slowly and allow the gizzard muscles to develop over a week or more. (16)
- Remove old or fibrous grasses after mowing or allow it to rot before poultry are introduced. (16)

Management Treatments

Physical Treatments

- Give olive oil. (3)
- Pour oil or melted lard down the throat and massage the crop. (8)
- Cut open crop, remove the contents, sprinkle crop walls with 1-tsp. Black pepper, and sew it up.
- Follow with diet of finely chopped hedge garlic, garlic, and rue. (1)
- Anoint the cut with Calendula cerate or Arnica mixed with water. (2)
- Treat with 3g of Epsom salts per 100 birds per day plus 10-15 ml of molasses per bird fed as a wet mash for 4 days. (16)
- Administer approx. ½ a tumbler of warm water to birds with a syringe then upend the bird and gently massage the crop. (16)

Nutritional Treatments

• Follow any surgical removal with diet of finely chopped hedge garlic, garlic, and rue. (1)

Herbal Treatments

• Make of brew of ½ tsp. Powdered gentian root in a small cupful of water; add 1 T milk, 2-tsp. Olive oil and give twice. (1)

- Give **Nux vomica** 12 pellets dissolved in drinking water.
- If no improvement or there is vomiting give **Pulsatilla**.
- Also may give China or Carbo veg. Or Arsenicum. (2)

Diarrhea

Other Names

dysentery, scouring

Organism or Mechanism

Preventative Measures

• Provide grit and greens. (8)

Management Treatments

• Spread lime on yards. (8)

Physical Treatments

- Add charcoal to mash (1 oz./quart of feed). (8)
- Give electrolytes and sugar water (10 oz/gal) in drinking water. (14)

Nutritional Treatments

- Feed mash of ground oats, wheat bran, and corn meal. (8)
- For chicks feed raisins, grated raw apples, and dried or fresh bilberries. (1)

Herbal Treatments

- For hens give warm milk with powdered slippery elm bark and honey 3X daily. (1)
- For chicks fast ½ day then feed diet of milk, honey, slippery elm, dill, and arrowroot for 1 ½ days. (1)

- **Ipecac** 12 pellets in drinking water or wet mash.
- If due to bad food give **Arsenicum** or **Chamomilla.** (2) or **Nux Vomica** (20)
- For pasty white discharge give Carbo veg. (2)

Egg Bound

Other Names

Organism or Mechanism

• retained egg

Preventative Measures

• Feed seaweed and chopped cleavers in bran mash daily. (1)

Management Treatments

Physical Treatments

- Remove egg with olive oil. (3)
- Massage sweet oil or castor oil in the vent. (8)

Nutritional Treatments

Herbal Treatments

• Give a dose of a pinch of ginger in 1-tsp. Castor oil. (1)

- Pulsatilla 3X (3)
- Silicea 6C (7)
- Nux vomica (8)

Egg Drop Syndrome

Other Names

EDS

Organism or Mechanism

• adenovirus carried by and widely distributed in wild and domestic ducks and geese (16)

Preventative Measures

- Provide good sanitation.
- Vaccinate if possible.
- Keep poultry away from ducks and geese.
- Minimize contact with wild birds.
- Purchase clean replacement stock.
- Ensure waterfowl does not contaminate water source. (16)

Management Treatments

• Force molt hens to renew production (16)

Physical Treatments

Nutritional Treatments

Herbal Treatments

- Calcarea carb 3X (3) for poorly shaped eggs.
- **Pulsatilla** 3X for bloody shelled eggs. (3)

Egg Eating

Other Names

Organism or Mechanism

- broken eggs
- pecked eggs

Preventative Measures

- Provide one 12"X12" nest for every 4-5 hens and locate nests 2' off the ground
- Keep 2" of clean dry nesting material at all times.
- Remove broody hens.
- Do not have bright lights near the nest boxes. (13)

Management Treatments

- Make mustard eggs by emptying an egg through a hole, filling the egg with mustard, and resealing it. (7)
- Make mustard eggs with flour, mustard, red pepper and a little water and fill eggs. (8)

Physical Treatments

Nutritional Treatments

• Give free-choice oyster shell

Herbal Treatments

Homeopathic Treatments

• **Calc Carb** 30C or **Sil** 30C (20)

Frostbite

Other Names

black comb

Organism or Mechanism

• freezing temperatures

Preventative Measures

- Prevent drafts.
- Cover combs with Vaseline. (3)
- Use breeds with rose combs. (17)

•

Management Treatments

• Seal up drafts.

Physical Treatments

• Apply Vaseline or calendula cream to comb and wattles. (17)

Nutritional Treatments

Herbal Treatments

• Apply caldendula cream or salve to comb and wattles. (17)

- Lachesis 30C
- **Agaricus muscarius** 6C daily for 3-7days
- **Phosphorous** 6C daily for 3-7 days (20)

Gape Worms

Other Names

- gapes
- cough

Organism or Mechanism

Syngamus trachea pathogenic nematode roundworm carried by earthworms, beetles, sowbugs, grasshoppers, and earwigs

Preventative Measures

• Isolate birds from infected intermediate hosts, especially the earthworm. (16)

Management Treatments

- Lime the infected ground. (3)
- White wash roosts and walls.
- Plow up and plant rye in yards. (8)

Physical Treatments

- Remove worms with oiled feather (sweet oil with a little clove oil) then add 3 drams of salicylate of soda/ quart of drinking water. (8)
- Use a feather dipped in mixture of 4 drops eucalyptus oil to 1/2 pint castor oil to remove worms. (1)

Nutritional Treatments

Herbal Treatments

- China 3X in drinking water. (3)
- **Dulcamara** and **Drosera** in alternation with **Sulphur** to complete the cure.
- Also **Ignatia**, **Lachesis**, or **China** (2)

Infectious Bronchitis

Other Names

IB

Organism or Mechanism

single stranded RNA coronavirus

Preventative Measures

- Avoid mixing age groups. (4)
- Birds laying wrinkled eggs are carriers and should be culled. (7)
- Vaccinate. (12)
- Maintain good air quality.
- Use an 'all-in/all-out' management policy with disinfecting between batches.
- Ensure houses are well ventilated but draft-free.
- Ensure houses are free from ammonia.
- Avoid multiple age groups.
- Prevent rodent infestation. (16)

Management Treatments

- Provide warm draft-free housing in winter.
- Increasing the temp. of the house by 3-4 degrees C may reduce mortality rates in infected flocks. (16)

Physical Treatments

Nutritional Treatment

• Give electrolytes in drinking water.

Herbal Treatments

- For chronic form give **Ipecacauh** 3X, **Antimonim tart** 3X, **Senega** 3X, or **Ammoniacum** 3X. (3)
- If nasal discharge give--Allium cepa, Kali bich.
- If coughing and sneezing give--Anti trat, Aconite.
- If damage to oviduct (false layer) give--Kali phos, Calc phos. (18)

Infectious Bursal Disease

Other Names

- IBDV
- Gumboro disease

Organism or Mechanism

Birnavirus

Preventative Measures

- Operate an 'all-in, all-out' policy between batches of birds.
- Disinfect between batches.
- Store poultry manure for at least 3 months before spreading and do not spread on poultry pasture.
- Vaccinate.

Management Treatments

- Close and isolate buildings.
- Remove and burn bedding, disinfect housing.
- Remove top few inches of soil in heavily infected areas. (16)

Physical Treatments

Nutritional Treatments

Herbal Treatments

- If birds inactive, reduced appetite, feathers ruffled give--Alfa alfa, China, Gelsemium.
- If watery feces with high urine content give--Kali phos+Calc phos.
- If swelling of kidneys marked enlargement of bursa of fabricius give--Berg vulg, Canharis, Lachesis.
- Combination remedy of **Gelsemium30+Acid phos30+Calc phos30**, 10ml each in 8 liters of water for 100 birds. (18)

Infectious Coryza

Other Names

- Cold
- Coryza
- Roup
- Catarrh
- Pip
- roop

Organism or Mechanism

Haemophilus paragallinarum bacteria

Preventative Measures

- Avoid mixing age groups. (4)
- Provide a warm, draft-free housing in winter. (17)

Management Treatments

• Fix drafts and provide dry litter.

Physical Treatments

- Spray a fine mist of camphor over the birds at night. (9)
- Place a few drops of camphor oil in each nostril. (8)
- Squirt hydrogen peroxide diluted one half with water into the nostrils. (8)
- Oxine (2% chlorine dioxide) non-activated fogged in house. (15)
- Give inhalations of eucalyptus oil in boiling water. (1)

Nutritional Treatments

- Fast for 1 day, then give laxative diet of cod-liver oil, chopped onions, and greens. (1)
- Give warm mash of feed, molasses, vinegar, chopped garlic and onions. (17)

Herbal Treatments

- Give plenty of garlic and strong sage tea with finely chopped spruce shoots in bran with molasses. (1)
- Give eyebright tea. (17)

- DO NOT USE IN COMBINATION WITH CAMPHOR TREATMENTS (20)
- If sneezing with thin, watery discharge give--Allium Cepa 3X or Arsenicum Alb. 3X.
- If watery discharge from eyes give--Euphrashia 3X.
- If thick sticky discharge give--Mercurius Vivus 3X or Hepar Sulph 3X.
- With bad odor; Homeogalline (Dolios) (11)
- Hepar sulph. and Spongia on alternate days or Calcarea carb. given alone (2)
- For early treatment give **Mercurius viv**. 12 pellets dissolved in drinking water, continue until cured, follow with **Acidum sulph.** if not cured.
- If caused by cold, wet weather or sudden changes in weather with increased discharge from nostrils and sneezing use **Arsenicum** 12 pellets dissolved in drinking water or mash. Follow with **Mercurius viv.** if not cured.
- If discharge thickens and eyes seem affected give **Euphrasia**.
- If due to dry, cold winds give **Aconite**.
- If occurs during warm, moist, relaxing weather give **Gelsemium**.
- If only partial relief from a remedy then give **Hepar Sulph**. (2)
- If hens have puffed faces, bright red color, and crouch give Nux vomica. (2)
- If nostrils are clogged and hens sit listless with open mouths give **Sp.**

Infectious Laryngotracheitis

Other Names

avian diphtheria

Organism or Mechanism

avian herpes virus

Preventative Measures

- Maintain a closed flock.
- Avoid heaters that discharge noxious fumes. (1)

Management Treatments

Physical Treatments

- Bathe eyes, insides of beaks and nostrils with a weak garlic solution.
- Give inhalations of eucalyptus, pine, or elecampane. (1)

Nutritional Treatments

Herbal Treatments

• Give very high doses of garlic and drops of honey. (1)

- If coughing with blood stained mucous from trachea give--Aconite, Ipecac, or Millefolium.
- If difficulty breathing and head extended to breathe give--Antim tart, Bryonia. (18)
- Cuprum (20)

Influenza

Other Names

- avian influenza
- fowl plague

Organism or Mechanism

type A influenza orthomyxoviruses

Preventative Measures

• Do not visit farms with outbreak

Management Treatments

Physical Treatments

• Use Oxine (2% chlorine dioxide) non-activated fogged in house (15)

Nutritional Treatments

Herbal Treatments

Lice and Mites

Other Names

external parasites

Organism or Mechanism

- *Cuclotogater heterographus* (head louse)
- *Menacanthus stramineus* (body louse)
- *Menopon gallinae* (shaft louse)
- *Lipeurus caponis* (wing louse)
- *Dermanyssus gallinae* (red mite)
- Ornithonyssus sylviarium (Northern fowl mite)

Preventative Measures

- Lime runs yearly and fumigate with cayenne pepper. (1)
- Keep wild birds, especially bird nests out of poultry houses. (16)
- Paint roosts and nest boxes with oil. (17)

Management Treatments

- Dust with flowers of sulfur. (3)
- Provide dust bath of coal dust and road dust. (8)
- Add wood ashes in dust bath. (8)
- Add derris powder, quassia chip powder, cinders, and powdered charcoal to dust baths weekly. (1)
- Add elecampane and fleabane to nest boxes. (1)
- Place dried tobacco leaves in nest boxes. (2)
- Rest runs and houses for at least 10 months after an outbreak since mites can live for up to 9 months off the chicken without a meal. (16)
- For mites use *Bacillus thuringiensis*, predatory mites, or an application of silica dust.
- Encourage *Coleoptera* beetles to live and breed in poultry houses to control mites.
- Lightly blowtorch the areas of infestation, followed by washing down and disinfecting. (16)

Physical Treatments

- Dust birds with tabacco. (1)
- For chicks rub eucalyptus oil on the head. (1)
- Mix 1 oz. of cedar oil mixed with 1 pint of other oil and apply to the neck and back. (2)
- For young chicks mix 2 parts glycerin with 1 part carbolic acid mix together and add to 5 parts water; add to sprouting feathers. (2)

Nutritional Treatments

Herbal Treatments

• Feed garlic.

Listeriosis

Other Names

- circling disease
- dizziness
- staggers
- vertigo

Organism or Mechanism

Listeria monocytogenes bacteria

Preventative Measures

• Provide good sanitation (4)

Management Treatments

Physical Treatments

Nutritional Treatments

Herbal Treatments

- Give **Belladonna** with plenty of cool water. (2)
- Nux vomica (20)

Marek's Disease

Other Names

- range paralysis
- neural & ocular lymphomatosis

Organism or Mechanism

Six different herpes viruses

Preventative Measures

- Vaccinate.
- Remove litter after infection since it can persist in litter for years. (7)
- Practice an all-in, all-out policy with disinfecting between batches.
- Rear you birds away from older birds for the first 2-3 months.
- Reduce insect populations in houses. (16)

Management Treatments

Physical Treatments

Nutritional Treatments

Herbal Treatments

- If paralysis, birds unable to stand and walk give—Causticum.
- If skin thickened by tumors, feather follicles thickened and leathery give--Calc flour, Calc carb.
- If iris effected and white appearance give--Arg nit, Euphrasia.
- If sciatic nerve is enlarged give--Kali phos 6x, Kali sulph 6x. (18)

Molt

Other Names

- Feathering
- molting

Organism or Mechanism

Process of feather replacement

Preventative Measures

• Provide lights to ensure 14 hours of daylight. (17)

Management Treatments

Physical Treatments

- Rub lotion of burdock brew (2 parts) and castor oil (1 part) on exposed areas. (1)
- Other plumage tonics are: foliage of wild daffodils, rosemary brew with a little vinegar, and southernwood brew. (1)

Nutritional Treatments

- Feed sunflower seed mash with milk. (3)
- Feed calcified seaweed with grit. (7)
- Feed linseed meal. (2)

Herbal Treatments

• Give dill, anise, fennel, seaweed, kelp, bladderwrack, dulse, maidenhair fern, nettle, cleavers, onion, or garlic. (1)

- Give Calcarea carb 3X and Phosphate of Iron in water. (3)
- Give **Gelsemium** 6c for calming. (7)
- If arrested growth of pullets during adult feathering give Calcarea carb.
- If there is foul discharge during adult feathering give Chamomilla.
- If the pullets look scruffy and mangy during adult feathering give **Hepar**.
- If there is restlessness, crying, and a general feverish condition in the pullets during adult feathering give **Aconite**.
- If there is a raw corroding fluid among the feathers give **Natrum muriaticum**.
- All remedies 12 or more pellets dissolved in drinking water or water for feed mash.
 (2)

Newcastle Disease

Other Names

- NOTIFIABLE
- avian distemper
- avian pneumoencephalitis
- pseudo fowl pest
- avian pest

Organism or Mechanism

paramyxovirus

Preventative Measures

- Vaccinate.
- Feed garlic. (1)
- Store feed in bird-proof conditions.
- Poultry flocks should be maintained some distance apart to prevent cross-infection.
- Maintain biosecurity. (16)

Management Treatments

• Keep hens warm and well fed. (4)

Physical Treatments

• Wash out the beaks with diluted eucalyptus (1-drop eucalyptus oil, 1-tsp. tepid water, and a little salt). (1)

Nutritional Treatments

• Give 1 tsp. of olive oil or honey given AM and PM. (1)

Herbal Treatments

• Give 2 tsp. of ground raw garlic mixed with vinegar 2X daily in 1/2 tsp. Doses. (1)

- If difficult breathing, opens beak and gasps for breath give--Aconite, Ars alb.
- If rattling noise and coughing give--Antim trat.
- If trembling legs leads to partial or complete paralysis give--Kali phos, Calc phos, Gelsemium.
- If twisting neck (torticolis) is main symptom give--Mag phos, Sulphur, Cicuta vir.
- Combination remedy of Carbo veg30+Veratum alb30+Belladonna30+Kali phos30, 5ml of each in 8 liters of water for 100 birds. This medicated water is repeated after every alternate day. (18)

Paratyphoid

Other Names

weak chick

Organism or Mechanism

Salmonella gallinarum bacteria

Preventative Measures

- Practice good management by controlling rodent vectors. (7)
- Give apple cider vinegar in drinking water and increase acidity of feed with organic acids. (10)
- Use competitive exclusion products such as Aviguard, Broilact probiotic. (12)
- Obtain chicks from disease-free flocks.
- Do not mix disease free stock with poultry of unknown disease status.
- Use feeds without contamination.
- Reduce contact with wild birds.
- Avoid surface water as a source of drinking water.
- Ensure proper disposal of dead birds. (16)

Management Treatments

- Add formic acid (calcium formate) to feed to ensure a low pH in the gut and control bacterial contamination of wet feed (2kg-4kg per ton). (12)
- Move to new ground. (1)

Physical Treatments

Nutritional Treatments

• Give apple cider vinegar in drinking water and increase acidity of feed with organic acids. (10)

Herbal Treatments

- Fast birds then feed garlic, 1/2 tsp. lemon juice diluted with sage tea 2X daily.
- Also add finely chopped rue and/or sage to a bran/molasses mash. (1)

Pasted Vent

Other Names

- cloacitis
- vent gleet

Organism or Mechanism

- In chicks: unknown
- In hens: loss of muscle tone

Preventative Measures

• Keep chicks warm.

Management Treatments

• Carefully clean vent and douche with a strong solution of garlic. (1)

Physical Treatments

- Give 1-tsp. bicarbonate of soda/quart of drinking water, repeat every 4-5 days, and follow by cleaning housing. (9)
- Apply venetian red (red oxide of iron). (8)
- Apply iodine on vent area. (10)

Nutritional Treatments

• Give a laxative diet followed by garlic. (1)

Herbal Treatments

- For chicks give: **Ipecauncha** 3X alternated with **Chamomilla** 3X
- If discharge is bloody or white give **Merc. Sub Cor** 2X (8 pellets/pint water) or **Ars. Iod** 3X. (3)
- Silicea (20)
- Give Carbo veg. (2)

Picking

Other Names

- feather picking
- vent picking
- cannibalism

Organism or Mechanism

- Insufficient protein
- Genetic predisposition
- Bright light
- Excessive egg size
- Excessive group size.
- Stress, boredom, and elevated levels of ammonia (11)

Preventative Measures

- Paint windows red or darken with burlap bags. (9)
- Reduce lighting intensity. (10)
- Scatter whole grains, bales of hay or corn stover in pens, alfalfa and hay in nets.
- Avoid large egg size by reducing levels of linoleic acid (flaxseed) and high energy when hens do not need it. (11)
- Spend time in chick brooder early on. (12)
- Use non-hybrid, docile breeds. (12)
- Maintain vigilance and isolate bullies and treat the injured.
- Increase time spent feeding.
- Ensure a balanced diet.
- Provide loose feed.
- Prevent parasites.
- Avoid Stress.
- Select breeds suited to free-range conditions.
- Avoid over-crowding. (16)
- Provide pumpkins to peck, however this may cause very pale yolks. (16)

Management Treatments

• Same as preventative treatments

Physical Treatments

- Apply Stockholm Tar to picked area. (7)
- Apply Bitter Apple, Listerine to picked area.
- Give 1-tsp. salt/gal drinking water in AM, then fresh PM and repeat three days later.

Nutritional Treatments

- Provide mangels, cabbage, lettuce, or burlap bags of barley hung from the ceiling. (9)
- Nail a piece of raw salt pork with a good rind on the wall. (8)
- Hang cabbages or bunches of nettles. (6)

- Scatter whole grains, bales of hay or corn stover in pens, alfalfa and hay in nets.
- Avoid large egg size by reducing levels of linoleic acid (flaxseed) and high energy when hens do not need it. (11)
- Ensure hens are receiving enough lysine, methionine and threonine in diet.
- Increase fiber content of ration with oats, add manganese sulphate to ration, add vitamin pack to ration. (16)
- Hang bagged leafy alfalfa. (17)

Herbal Treatments

• Feed comfrey. (17)

Homeopathic Treatments

• Helleborus niger (20)

Poisoning

Other Names

Organism or Mechanism

- poisonous plants
- chemicals
- mycotoxins (in feed)
- fusarium (on grains)
- ergots (on grass or grains) (7)

Preventative Measures

- Remove poisonous plants from range, i.e.: potato, black nightshade, henbane, iris, privet, rhododendron, castor, sweet pea, yew, rapeseed, corn cockle, clematis, St. John's Wort, buttercup, vetch, ragwort, blue-green algae. (7)
- Use warfarin based rat baits as chickens are relatively resistant to them, but avoid those with phosphorus, arsenic, or zinc. (7)

Management Treatments

Physical Treatments

Nutritional Treatments

Herbal Treatments

- Nux vomica
- Could try isopathy: i.e. **Belladonna** for nightshade poisoning or **Hypericum** for St. John's Wort poisoning (20)

Pox

Other Names

- fowl pox
- avian pox
- avian diphtheria

Organism or Mechanism

pox virus

Preventative Measures

- Control mites and mosquitoes.
- Vaccinate. (4)

Management Treatments

• Isolate infected birds.

Physical Treatments

Nutritional Treatments

Herbal Treatments

- Alternate **Arsenicum** 3X and **Rhus tox** 3X (3 pellets every 2 hrs.).
- If many are affected put 20 drops (pellets) of **Arsenicum alb.** 3X in 1 pint water and make a feed mash, follow with **Rhus tox** mash. (3)
- Dissolve 1-3 dozen pellets of **Arsenicum** in the drinking water for three days. If no improvement change to **Rhus tox**, renewing each day.
- **Belladonna** for hot fever and **Silicea** if pustules break. (2)
- If lesions on head and comb are wart-like give--Antim tart.
- If lesions in mouth are diptheric type give--Kali mure, Nat sulph.
- If lesions with fever give--Antim tart, Aconite.
- If lesions without fever give--Bryonia, Calc phos.
- Head remedy--Variolinum30 or 200.
- Combination remedy of **Pulsatilla200+Thuja200+Nat sulph200**, 5ml each in 8 liters of water for 100 birds. (18)

Predation

Other Names

Dead chickens

Organism or Mechanism

foxes, dogs, coyotes, weasels, opossums, raccoons, skunks, snakes, hawks, owls

Preventative Measures

- Use electric netting, dogs, lion or tiger dung. (10)
- Use nighttime dog patrols.
- Close up housing at night.
- Don't pasture near hedgerows or other places predators can hide. (17)

Management Treatments

- Walk fence lines and inspect buildings for access
- Include geese or quineas in the flock as watch dogs. (17)

Physical Treatments

• If killing is done by dogs tie dead poultry to the collar of the dog and leave for a week. Do not socialize with dog. (17)

Nutritional Treatments

Herbal Treatments

Prolapse

Other Names

- dropped vent
- hernia

Organism or Mechanism

- Vent protruding due to egg retention
- Disease of the reproductive system
- Degeneration of the muscular system or prolonged laying (1)

Preventative Measures

- Support natural laying cycles.
- Provide exercise. (1)
- Don't push pullets to lay too early. (17)

Management Treatments

Physical Treatments

- Massage the protruding organ with grease and carefully press it back into position. Place a pad of cotton soaked with witch hazel and bind tightly. (1);
- Wash the protruding organ in lukewarm water or milk, anoint with linseed oil or sweet oil and gently force it back into the body. Repeat several times. (2)

Nutritional Treatments

• Fast for 1 day, then feed a very light diet of greens, bran mash, molasses and buttermilk. Stop feeding seaweed during treatment. (1)

Herbal Treatments

- Treat with a dose of **Aconite** if organ is put back in.
- Treat with **Pulsatilla** or **Nux vomica** when external treatment is not used. (2)
- Podophyllum if losts of straining
- Sepia or Silica (20)

Rats

Other Names

Organism or Mechanism

- Rattus rattus (black or roof rat)
- *Rattus norvegicus* (Norway rat)

Preventative Measures

- Block rat holes with asparagus foliage. (1)
- Cover floors and/or walls with hardware cloth.
- Reduce access to feedstuffs.
- Employ a patrol of aggressive cats. (17)

Management Treatments

- Scout for and cover new rat holes.
- Place snap traps or box traps in runways or along walls. (17)

Physical Treatments

- Put out cornmeal and plaster of Paris bait. (8)
- Try carefully managed use of organically approved rat baits as last resort. (17)

Nutritional Treatments

Herbal Treatments

Scaly Leg Mites

Other Names

Organism or Mechanism

Knemidocoptes mutans

Preventative Measures

• Add red and yellow cedar chips in nest boxes.

Management Treatments

• Apply pyrethrum in cracks of roosts and nest boxes. (7)

Physical Treatments

- Soak feet in bichloride (1 to 1000) for 5-10 min., then cover with Vaseline . (3)
- Dunk feet in surgical spirits once a week three times. (7)
- Apply ointment of kerosene/lard/and a little sulfuric acid to legs 3X/day. (8)
- Scrub legs with soapy water and a little ammonia then rub in a solution of garlic brew, cayenne and vinegar in equal parts 2X/day. (11)
- Use *ParasiteX* citrus oil based product.
- Scrub legs with soapy water and a little ammonia then rub well 2X daily with a strong solution of garlic, cayenne, and vinegar. (1)
- Apply tea tree oil to feet. (17)

Nutritional Treatments

- Feed mineral supplement with vitamins, minerals, and probiotics.
- Change feed to boost iron. (15)

Herbal Treatments

Homeopathic Treatments

• Give 12 pellets of **Sulphur** in drinking water and renew every day. (2)

Thrush

Other Names

- Candidiasis
- sour crop
- crop mycosis

Organism or Mechanism

Candida albicans yeast-like fungus

Preventative Measures

- Practice good nutrition and sanitation. (4)
- Regularly clean water and feed troughs. (16)

Management Treatments

- Isolate infected birds.
- Clean and disinfect feeders/waterers.

Physical Treatments

- Flush with molasses or Epson salts, followed by 1/2 tsp. copper sulfate (powdered bluestone) per gallon of drinking water every other day for 5 days served in a nonmetal waterer.
- Clean mouth sores with hydrogen peroxide.
- Treat with copper sulfate at a dilution of 1:2,000 in drinking water or mix gentian violet in feed. (16)

Nutritional Treatments

Herbal Treatments

• Feed garlic at 2-5% in feed. (16)

Homeopathic Treatments

• Pulsatilla (20)

Toxoplasmosis

Other Names

Organism or Mechanism

Toxoplasma gondii protozoan parasite

Preventative Measures

• Control feline (cat) vector. (15)

Management Treatments

Physical Treatments

• Give venetian red 1 tsp./bird/day

Nutritional Treatments

Herbal Treatments

Tuberculosis

Other Names

- avian TB
- avian tuberculosis

Organism or Mechanism

Mycobacterium avium bacteria

Preventative Measures

- Do not keep chickens over 18 months.
- Rotate range. (4)

Management Treatments

• Clean and disinfect housing and soil.

Physical Treatments

• None, cull (1)

Nutritional Treatments

Herbal Treatments

- If muscles of breast reduced in size exposing sternum give--Tuberculinum 1M.
- If lameness & swelling of joints give--Kali phos, Rhus tox.
- If comb and wattles appear pale in color give--Alfa alfa, China. (18)

Wasting

Other Names

- Marasmus
- consumption

Organism or Mechanism

Preventative Measures

Management Treatments

- Purge birds with castor oil (2 tsp.) followed by a stimulating tonic of powdered fennel, anise, coriander, and cinchona (30 grains each).
- Give powdered gentian and ginger (1 dram each).
- Give powdered sulfate of iron (15 grains); mix and add to feed. (8)

Physical Treatments

Nutritional Treatments

Herbal Treatments

- Hepar sulph. (2)
- Nat Mur (20)

White Egg Syndrome

Other Names

• Pale egg syndrome

Organism or Mechanism

Possibly avian pneumovirus (12)

Preventative Measures

- Prevent pecked backs by roosters and other hens. (12)
- Do not disturb hens during lay. (12)

Management Treatments

• Confine hens to housing during sunny weather. (12)

Physical Treatments

Nutritional Treatments

• Give magnesium in feed. (12)

Herbal Treatments

Wounds

Other Names

• contusions, abrasions, cuts, bruises

Organism or Mechanism

- other birds
- roosts
- sharp edges on nest boxes or feeders,
- rats
- dogs
- rough handling

Preventative Measures

- Ensure housing is free of things that might cause injuries.
- Keep few if any roosters in laying flock.
- Do not allow children or dogs to chase birds.
- Move birds in crates when transferring to new housing. (17)

Management Treatments

• Remove roosters or aggressive birds from flock. (17)

Physical Treatments

• Apply hydrogen peroxide to wounds. (10)

Nutritional Treatments

Herbal Treatments

• Apply solution of 8 drops calendula tincture to 1 cup water and bathe wound 2-3 times daily (20)

- Give **Arnica** 6C or **Aconite** 6C for early infections. (7)
- Make **Arnica** lotion of 1 part **Arnica** tincture to 20 parts water and put a few drops in chickens mouth. (2)
- **Hypericum** for crushing injuries to toes or wings (20)

Worms

Other Names

internal parasites

Organism or Mechanism

- Ascaridia galli (roundworm)
- Capillaria bursata, C. caudinflata, C. absignata, (roundworms)
- *Syngamus trachea* (nematode/gapeworm)
- Heterakis gallinarum (cecal worm)
- cestodes Davainea proglottina
- Raillietina cesticullus (tapeworms)
- trematodes (flukes)

Preventative Measures

- Keep pastures clipped and limed. (10)
- Graze pasture one year and cut the next, (11)
- Use good hygiene practices.
- Rotate runs and houses.
- Keep age and species groups separate.
- Stack, heat, and sterilize poultry manure and do not spread it on poultry pastures. (16)
- Avoid surface water, avoid damp places in houses.
- Leave runs empty for a least 2 months between batches.
- Allow grass to dry after dew or rain before allowing animals to graze. (19)

Management Treatments

- Remove infected litter and sanitize housing.
- Plow and reseed infected fields.
- If there is heavy contamination of earth-floored houses, remove the top 15-cm of soil. (16)

Physical Treatments

- Give a 2-grain pill of santonin to each bird followed by 2 tsp. of raw linseed oil. (8)
- For pinworms give a rectal injection of garlic, mustard, peppermint oil (1/2 tsp. oil/1 pint water), or eucalyptus (1/4 tsp./pint water) oil solution. (1)
- Give Shakelee's Basic H surfactant administered as a solution in water. (19)

Nutritional Treatments

- Give a laxative diet: mash of pumpkin seeds and milk after a 12 hour fast, follow with a warm mash of bran, middlings, and milk. (8)
- Give finely chopped onions and garlic. (11)
- Feed finely grated raw carrot, garlic, onions, and parsley. (1)
- Feed mustard; squash or pumpkin seeds; carrot and fennel seeds.
- Add DE and charcoal to feed all preceded by a fast and followed by a laxative period. (19)

Herbal Treatments

- Give a course of garlic for ten days (1 clove/hen/day) and add to the diet bramble leaves, elder leaves, wormwood, wormseed, cotton-lavender, rue, hyssop, (1)
- Give powdered cayenne or senna after a fast. (1)
- If tapeworms are very bad give 1/2 tsp. grated male fern root mixed with bran, castor oil and molasses daily. (1)
- Give garlic (pills, powders, fresh, tinctures), wormwood (Artemisia spp.), wild ginger, snakeroot, goosefoot, conifers (pine, spruce, firs), fennel seeds, or pyrethrum all preceded by a fast and followed by a laxative period. (19)

- If worms in the nostrils or ears causes circling give Cina. (2)
- If affected birds lose weight, ruffled feathers, rapid breathing give--Aconite, Santonite 3x, Tucrum merver.
- Head remedy--China, GNA. (18)

REFERENCES USED IN THE COMPENDIUM

Τ.	CET EIGHT CES	OSED III THE CO		
No.	Title	Author	Publisher	Year
]	The Complete Herbal Handbook for Farm and Stable	de Bairacli Levy, Juliette	Faber and Faber	1952
	The Poultry Doctor		B. Jain Publishers PVT. LTD.	1990
	Poultry Sense	Pursell, J.P. M.D.	Dr. James P. Pursell	1911
4	The Chicken Health Handbook	Damerow, Gail	Storey Books	1994
5]	Poultry Diseases	Gordon, R.F.	Bailliere Tindall	1977
6]	Modern Free Range	Roberts, Michael	The Domestic Fowl Research	1988
	Diseases of Free-Range Poultry	Roberts, Victoria	Whittet Books	2000
8]	Making Poultry Pay	Powell, Edwin C.	Orange Judd Company	1904
	Profitable Poultry Management	Lee, Clarence E.	The Beacon Milling Co., Inc.	1935
10 1	Free-Range Poultry	Thear, Katie	Farming Press	1999
	Organic Livestock Handbook	Macey, Anne Editor	Canadian Organic Growers Inc.	2000
12	Prevention and Treatment of	Disease in Organic Flocks	British Free Range Egg Producers Association	2000
	Small Flock Factsheet #13 Prevention of Egg Eating	Clauer, Phillip J.	Virginia Cooperative Extension Service	1992
14 \$	Solutions for Poultry	msucares.com	MSU	2003
15	Poultry Healthcare	Theodore, K.J.	shagbarkbantams.com	2003
16	Compendium of Animal Health & Welfare in Organic Farming	Organic Livestock Research Group, VEERU, Dept. of Agriculture, The University of Reading	_	2000
(Survey of Remedies for Common Health Problems of the Organic Laying Flock	Glos, Karma and Michael	Sustainable Agriculture Research and Education (SARE)	2003
	Poultry Diseases	Makker, Dr. Surjit S.	www.vethomeopath.com	2003
19 1	Managing Internal Parasites in Organic Livestock		Organic Agriculture Centre of Canada:www.organicagcentre.ca	2003
20	Technical editor	Ober, Dr. Sarah DVM	Candor Animal Care, Candor, New York	2003

RECCOMENDED WEBSITES

		TOPIC OF	,	
WEBSITE	ORGANIZATIO N	FOCUS	BRIEF DESCRIPTION	
smallcountryholding.com	Small Country Holding Magazine	Farming	Provides information about farming in the UK and offers a newsletter.	**
farm-assist.co.uk	Farm Assist	Homeopathy	Homeopathic remedies and management plans for herd and flock.	*
labosolidago.net	Labo Solidago	Homeopathy	Provides homeopathic remedies and service, free phone consults, and diagnostic tutorial.	***
vethomeopath.com	Dr. Surjit S. Makker, Punjab India	Homeopathy	Provides excellent diagnostic and treatment information with photographs.	*** *
homeopatianimal.ind	Arenales Fauna and Flora	Homeopathy	Company that provides remedies and service.	*
rspca.org	Royal Society for the Prevention of Cruelty to Animals	Livestock Welfare	Standards for RSPCA Freedom Foods	*
organicagcentre.ca	Organic Agriculture Center of the Nova Scotia Agriculture College	Organic Farming	Research and education serving farmers and students. Web courses in organic livestock management. Articles on line.	***
organic.aber.ca.uk	The Organic Centre, Wales	Organic Farming	Research and education for organic farmers, free help-line, articles on line	***
sac.ac.uk	The Scottish Agricultural College	Organic Farming		*
certifiedorganic.bc.ca	British Columbia Certified Organic	Organic Farming	Provides on-line help for farmers and lots of good articles.	***
veeru.reading.ac.uk	University of Reading	Organic Farming	Provides excellent diagnostic and treatment information.	*** *
soilassociation.org	Soil Association	Organic Farming	Offers technical bulletins and certification.	**
shagbarkbantams.com	K.J. Theodore, Shagbark Bantams	Poultry	Provides lots of good articles on chicken health care.	***
ianr.unl.edu	University of Nebraska, Institute of Agriculture and Natural Resources	, Poultry	Provides the NEB Guides, articles on raising poultry.	***
kdthear.btinternet.co.uk	Katie Thear	Poultry	Poultry author and publisher.	**
bfrepa.co.uk	British Free-range Egg Producers Association	Poultry	Provides lots of good articles and technical papers, and publishes The Ranger Magazine.	***
pigandpoultry.org.uk		Poultry		*
netvet.wustl.edu	D' 0 1 F '	Veterinary	Clearing house for all vet resources.	**
vetgate.ac.uk	Biome Search Engine	Veterinary	Clearing house for vet web sites and information.	**
altvetmed.com	J.A. Bergeron, VMD and S.G. Wynn, DVM	Veterinary	Provides good book list, US vet list, and articles.	***
homeovet.net		Veterinary	Focuses mainly on pets and horses.	*
natural-animal-health.co.uk		Veterinary	Focuses mainly on pets and horses.	*

Farms surveyed by the Survey of Organic Health Care Methods for the Laying Flock who are willing to share information with other farmers

Udderly Woolly Acres Joan & Tom Kemble 581 Thompson St. Glastonbury, CT 06033 860-633-4503 t-jkemble@erols.com

Many Hands Organic Farm Julie Rawson 411 Sheldon Rd. Barre, MA 01003 978-355-2853 julie@mhof.net

Natural Way Organic Farm Anne L. Goldstein 79 Hill St. Topsfield, MA 01983 978-887-8580 gardendelight3@hotmail.com

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Macleod Farm Lisa & Chuck Macleod 148 Hedman Rd. New Sweden, ME 04762

Sunrise Acres Farm Sally Merrill 42 Winn Rd. Cumberland Ctr., ME 04021 207-829-5594 sam082400@aol.com

Tide Mill Farm
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Wild Asparagus Farm Charlotte Burley & Winfield Robbins PO Box 169 Whitefield, ME 04353

Woodcock Farm
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Stone Wall Farm Charlie Reid 97 McCrillis Rd. Nottingham, NH 03290 603-679-8101 charliereid@ttlc.net

Early Morning Organic Farm
Laurie Pattington & Anton Burkett
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315-364-6941
earlymorn@baldcom.net
Weed Farm
Sugan Bourg &

Kingbird Farm Karma & Michael Glos 9398 West Creek Rd. Berkshire, NY 13736 607-657-2860 karma@kingbirdfarm.com

Mountain Creek Herb Farm Glenn Litwiller 7556 County Rd. 33 Naples, NY 14512 585-374-9108 herbmtn@aol.com

Sabol's Farm Richard & Susan Sabol 7999 Rte. 414 Ovid, NY 14521 607-869-5896 ssabol@rochester.rr.com

Sunnyside Farm Pam Moore 2083 Moore Hill Rd. Nichols, NY 13812 607-699-7968

Akaogi Farm Takeshi & Linda Akaogi 27 Earthridge Rd. Putney, VT 05346 Doolittle Farm
Bay Hammond
1078 Doolittle Rd.
Shoreham, VT 05770
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Fat Rooster Farm Jennnifer Megyesi & Kyle Jones 354 Morse Rd. S. Royalton, VT 05068 802-763-5282 rooster@souer.net

Riverbend Farm Ann-Elise Johnson 1 Rock Point Rd. Burlington, VT 05401 802-865-0569 riverbendfarmvt@juno.com

Weed Farm Susan Borg & Richard Nessen 613 Quaker St. Lincoln, VT 05443 802-453-7395 weedfarm@gmayt.net

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