

"A NATION-WIDE SERVICE"

Dr. Salsbury's POULTRY HEALTH Messenger

VOL. 1

JULY, 1931

NO. 3

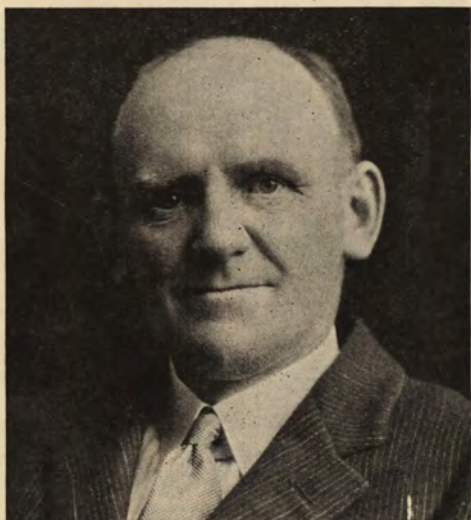
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Published Monthly By
DR. SALSBUURY'S LABORATORIES,
CHARLES CITY, IOWA, U.S.A.

GREETINGS

—Convention Visitors



Dr. J. E. Salsbury, President and active Manager of the company that bears his name. Dr. Salsbury knows the poultry disease problems for active personal contact with this work extends back a great many years.

We are glad to meet you and become better acquainted. To our new friends: we are glad to know you and hope that our acquaintance will be mutually pleasant. To our old friends: we are glad to see you again.

Visit our booth while at the Convention (Nos. 167 and 168). If you don't have time to stay very long drop in and say "Hello." If you can stay for a longer time be seated and rest yourself. If you have any problems on diseases, testing, vaccinating, merchandising, service work, etc., talk them over with us without any obligation on your part. If you don't have any of these problems, come in and we will talk about the other fellow's problem.

It is going to be a great Convention. Come and see us.



Mr. Herman G. Bos, Sales Manager, is an expert salesman specializing in merchandising, helps to the hatcheries. Mr. Bos is full of practical ideas on how to merchandise goods, and he will be glad to tell you about it.



Dr. Sivert Eriksen, in charge of the Biologic Department, has had many years of experience in laboratory and diagnosis work for state institutions and commercial companies. Dr. Eriksen is always glad to discuss any problems that pertain to his work.



Mr. M. B. Potratz, Eastern District Manager, wants to meet every hatcheryman in his district. Mr. Potratz has visited more hatcheries, knows more about conditions in the East than any man in our organization. His wealth of practical experience is at your disposal.

To the Stay-at-Homes

To those who can't make the Convention this year, we know you will miss a great treat. But as a next best feature look for our report on the Convention in the following issues.

Our new 48-page Manual has been revised from cover to cover. It is now ready and will be mailed to you just as soon as possible. It is our personal greeting to you. Special literature on testing, vaccinating, etc., is also available and since we could not talk with you personally at Louisville, let us talk to you through the mails.

POULTRY HEALTH MESSENGER

Published monthly in the interest of Hatcherymen, Produce Dealers, Druggists, Dealers in Poultry Supplies, and all other branches of the allied industries concerned with the health and well-being of poultry.

DR. SALSBUURY'S LABORATORIES, CHARLES CITY, IOWA

DR. J. E. SALSBUURY, *President*

DR. SIVERT ERIKSEN, *Editor*

D. J. SKYRME, *Treasurer*

VOLUME I

JULY, 1931

NUMBER 3

What We Know About Worms in 1931

By DR. SIVERT ERIKSEN



EACH year adds a little more to our knowledge of the broad subject of worms in chickens. During the past few years great strides have been made in the discoveries of some species of worms not heretofore generally recognized.

Chief of these were the capillaria worms that may occur in the various parts of the intestines and the small species of microscopic

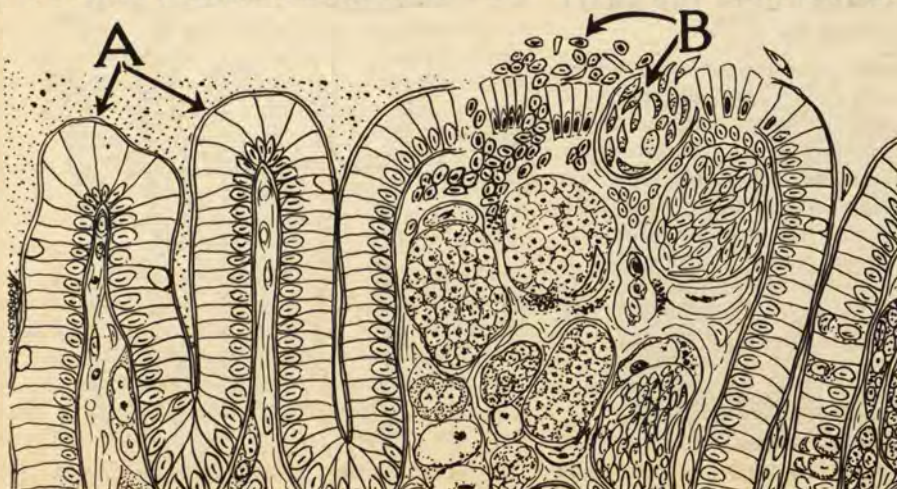
tape worms. These two classes of worms hold the key to many a failure in chicken raising.

A few years ago we considered the round worm and large tape worm as of greatest importance at the time the birds were beginning to lay. Now we realize that the greatest danger from worms comes early in life of the chick. Dr. Ackert and other scientists in Kansas definitely proved that round worms are decidedly injurious

to chicks three weeks of age. Dr. Ackert says that chicks three weeks of age that have been fed experimental worm eggs soon become "sluggish, loss of appetite, ruffled feathers, droopy wings, loss of urates and increased mortality." He continues by saying the "effects of this worm upon the chicken is caused by injury to the intestinal wall, loss of blood, probable bacterial infection, absorption of metabolic wastes (poisons) from the worms, and partial inanition (lifelessness), results from loss of appetite." This discovery by one of the foremost scientists emphasizes clearly and explicitly the matter of early plans and preparations to combat the worms.

Dr. Edgington writes in the Ohio Bimonthly bulletin that "treatment alone may remove the worms, but it does not protect fowls against reinfestation. Prevention is as necessary as treatment."

Dr. Cram has been working very diligently at Washington for several years discovering the many secrets of the uncommon parasites and worms in poultry. In a recent bulletin the fol-



Intestinal inflammation as seen under the microscope.

A—Normal smooth intestine.

B—Inflammation has broken the lining and blood and tissue cells are coming through. This causes blood in the droppings.

Proper treatment is necessary to correct inflammation of this kind.

lowing species are described. This information is important because sometimes the ordinary worm treatment does not straighten the flock up entirely and it then behooves a person to check up the reason why. In nearly all cases where the ordinary worm treatment is unsatisfactory, we find there are extraordinary parasites present



When these intestines were opened, hundreds of worms of various sizes were found.

that require special treatment. The excellent work done by Dr. Cram will become of greater importance to the poultry industry as time goes on.

Strongyloides avium is a new specie of round worm that has been discovered in the caeca of the chickens and quail from the South. It produces marked inflammation and is undoubtedly of much importance.

Tetrameres americana is an unusual parasite in that the female is red in color, elongated and flat (turtle shape) while the male has a characteristic appearance of a round worm. These parasites live in the glandular stomach or proventriculus and are fairly common in chickens.

Cheilospora haemulosa is a round worm found in the gizzard in both chickens and turkeys. It burrows through the intestinal lining. It seems that the grasshopper is a common intermediate host for this parasite. There are several other

species that seem to be transmitted by the means of grasshoppers.

Dispharynx spiralis is another thin hair-like worm found in the glandular stomach. The male and female are both typical worm shaped and cause heavy losses. In addition to causing trouble in chickens it is also found in the partridge, quail, turkey, pigeon, guinea fowl, etc.

Many species of capillaria worms are found in the crop, proventriculus and small intestines.

All this new information makes one think that the parasite problem is getting greater every day, which it undoubtedly is, and yet part of it is merely finding out the facts that have been in existence for many years.

ARE WE LOSING OUR BATTLE AGAINST WORMS?

The chief government parasitologist made the statement a number of years ago that the American public was losing its battle against worms in various farm animals. Since that time new discoveries in preparation of worm medicine has greatly strengthened our battle lines against this common enemy.

If the public will accept and use the latest discoveries in worm control it will not be long before the tide will be turned and they will be winning the war against worms.

TAPE WORMS

Types and Classification

It has been found convenient to classify the tape worms in three main groups based entirely upon size.

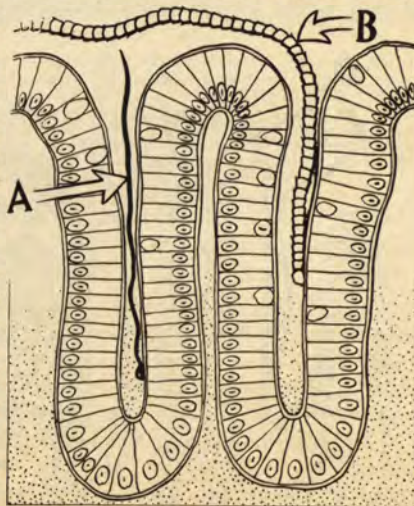
(1) **LARGE TAPE WORMS** usually measure from eight to twelve inches but may be considerably longer. They usually inhabit the posterior part of the small intestines, and are represented

CONSTANT TREATMENT GETS THE SMALL WORMS

The drawing to the right represents a microscopic appearance of the different kinds of worms. The one marked A is a small microscopic worm hidden in the folds of the intestines. B is a large worm attached to the folds but extending on into the intestinal tract. One treatment of worm medicine will remove worms of the B type but will not touch worms of the A type because they are too deeply burrowed in the folds. Constant treatment with AVI-TONE will eventually get these worms.

Retail Prices on AVI-TONE, the 100% Worm Remover and Tonic

5 lbs.....	\$3.00	25 lbs.....	\$12.50
15 lbs.....	8.25	50 lbs.....	24.00



by the following species: *Choanotenia infundibuliformis*, *Davainea tetragona* and *D. cesticillus*.

(2) THE MEDIUM SIZED TAPE WORMS measure from one to three or four inches and are usually found throughout the middle portion of the intestinal tract, represented by a number of species of *Raillietina*.

(3) The MICROSCOPIC, or almost microscopic, group are usually located in the anterior part of the small intestines or are deeply burrowed in the mucosa and are frequently difficult to find. The most important representative of this group is *Amoebotaenia sphenoides* and closely followed by *Davainea proglottina*.

SYMPTOMS AND LESIONS PRODUCED

The large species of tape worms are most frequently found in older birds and do not produce very characteristic symptoms. Frequently a heavy infestation is found in apparently healthy birds. The medium and microscopic sized tape worms are more frequently found in growing birds and may be found in mature birds. They produce a progressive emaciation with its accompanying anemia and frequently nervous symptoms such as paralysis and leg weakness. Clinically these cases cannot be differentiated from tuberculosis. The tape worms are firmly attached to the intestinal mucosa and when they are sufficiently numerous they produce an extensive muco-catarrhal enteritis; this is usually manifested by a diarrhea. The exact relation between tape worm infestation and so-called range paralysis has not yet been determined. It seems that a great many cases of so-called paralysis show nothing very characteristic on post mortem examination except muco-catarrhal enteritis due to heavy tape worm infestation. It is not claimed that all cases of range paralysis are caused by parasites but undoubtedly many of them are.

On autopsy examination one usually notices the thickened condition of the intestinal wall even before the intestine is opened. This is particularly true with the infestation of microscopic tape worms in the duodenum. When the intestine is opened the lining is found to be greatly thickened and there is a great deal of stringy exudate. It may be necessary to put some this exudate on a microscopic slide in order to find the tape worms. Many of these tape worms can be detected when some of the material is placed between two slides and flattened. The tape worms then show up as small white specks or lines which may be confirmed by hand lens or microscopic examination. Some of the very slender species may be detected by running a sharp pointed instrument through the mucosa, the fine strands which adhere to this instrument must be identified more definitely since capillaria worms look very much like some of the tape worms when stretched in this manner.

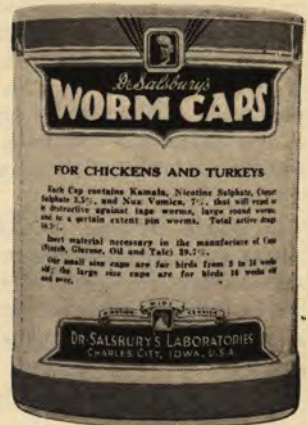
HOW TO HANDLE THE WORM PROBLEM IN POULTRY

When growing birds or mature chickens are found to be wormy they should be treated with an individual worm treatment that does three things. First, gets the worms; second, is easy on the birds; and third, economical to use.

You will find all three of these principles embodied in Dr. Salsbury's WORM CAPS.

The active ingredients of WORM CAPS are Kamala for tape worms and Nicotine for round worms. Kamala has been used as a medicine in India for centuries but it is only some five or six years ago that Government officials at Washington discovered its merits in regard to the removal of tape worms in chickens. It is now recognized as the only drug that is reasonably effective against the tapes. Nicotine has been used for a longer period of time. Originally its greatest drawback was its toxicity.

Recent discoveries in combining Nicotine with other drugs have made this drug practically 100% safe and yet has not lost its efficiency. Nicotine (Continued on page 8)



Write for Dealers' Prices on WORM CAPS.



The WORM CAPS are easy to give.



All Year Hatchery Business Or, Closed for the Season?



How "Poultry Health Service" Answers This Question
by Insuring Year 'Round Sales

By H. G. BOS

IF YOUR new car needed some minor adjustment, you would take it to the dealer who sold it to you. But if you found his place of business closed for the summer, how would you feel? That sort of thing does not happen in the automobile business. If any auto dealer was to do business that way, you simply would not be a customer!

Litchfield Hatchery of Litchfield, Minn., does things in a business-like manner. L. L. Baumgartner, the president, believes that success in the hatchery business is measured by the amount of service he renders to the poultry raisers. He says:

"Our service men in the field soon become familiar with customers and get to know their whims and moods. This puts us in a favorable position for knowing how to do business with each individual customer.

"Experience shows us that loss of customers is due largely to dissatisfaction or the loss of chicks they bought from us. Whether we are to blame for the loss, or not, is beside the question. The fact remains that most chick buyers will blame the hatchery that produced them.

"We know that perfectly healthy chicks were sold to all customers, but we do not know about the conditions under which they are being raised, nor what sort of equipment the complaining poultryman has on his place for raising them.

"Rather than start an argument about the chick losses, a serviceman is instructed to visit the poultryman's place and make a careful investigation. He finds the trouble, which invariably is overcrowding, chilling, overheating, or some other kind of mismanagement. By discovering and explaining the cause of his poultry troubles he can readily satisfy the customer, who in turn becomes a booster, instead of a probable knocker.

"Such complaints about chick losses must be adjusted at once, of course, as a matter of good business. Yet, if such settlement is made, it not only results in making the sale unprofitable, but sets a dangerous precedent because other chick buyers hear of it and come trooping in for similar adjustments. On the other hand, if we re-

fuse to make adjustment or even take a reasonable stand in defense, we lose customers and add some more knockers at the same time.

"The confidence and good will of customers is the foundation of any successful business. The estimated cash value of a customer who buys 400 chicks in spring, plus the necessary feed, equipment and remedies, is about \$25.00 per year. Losing 20 such customers would mean a loss of \$500.00 yearly.

"The hatchery service man not only is able to forestall and reassure dissatisfied buyers of chicks, but can also add at least 30 new customers, making such a service worth around \$1,250.00 a year in added profits."

Mr. Baumgartner's service men keep him fully informed about the health of different flocks which furnish eggs for his hatchery at Litchfield, and branches at Hutchinson, Cokato and Paynesville. Naturally, some flocks are found to produce eggs which show low hatchability, and poor livability of chicks. By keeping in close contact with the flock owners and by teaching them proper management and feeding, he gets better results with the incubators.

Service calls are not confined to the hatchery's flocks merely, but are also made wherever poultry is raised. This is, of course, good advertising for the Litchfield Hatchery and its branches.

When organizing, Mr. Baumgartner took advantage of the nationally known poultry health service rendered by Dr. Salsbury's Laboratories. Poultry service experts were sent to train Mr. Baumgartner's fieldmen for detail work and for diagnosing poultry ailments. This assistance has proved invaluable because the men are now able to talk intelligently to the poultry raisers about the control of disease.

He further states that Litchfield Hatchery's men are making for themselves a reputation by checking practically all the difficulties they come in contact with, using Dr. Salsbury's Poultry Health Preparations, Bacterins and Vaccines.

The success of any poultry raiser depends, to a great extent, upon the health of his flocks. He knows that. The hatchery service man who knows

how to diagnose and suggest the proper means for controlling the diseases which are common to poultry, is soon recognized by all the poultrymen as a friend indeed, which makes a service man a potential salesman, quick to turn opportunities into cash sales.

After the chick season closes, Mr. Baumgartner has his service men busy, encouraging flock owners to worm their chickens. And while doing this they are also suggesting to the poultry raisers that they cull their older birds. This brings extra earnings as well as profits from the sales of worm and other medicines.

With the sale of Dr. Salsbury's remedies, Mr. Baumgartner has made this service idea self supporting. At the same time the service plan has greatly increased the yearly sale of chicks, and has kept his branch managers busy all summer, acting as service men in the field.

CAN'T BE BEAT FOR BRONCHITIS

"We have found that the PHEN-O-SAL and CAM-PHO-SAL for Brooder Pneumonia and Bronchitis can't be beat. Can recommend it for good results."—MADDEN CROUSE PRODUCE CO. & HATCHERY, Milledgeville, Ill.

* * *

CUSTOMERS LIKE OUR SERVICE

"We are using Dr. Salsbury's complete line in treating the various chicken diseases in our community. We get many compliments on the good results obtained, in treating sick fowls in our service flocks."—GEO. DIEHL, Lanard, Ill.

* * *

"NOW I KNOW WHAT YOUR PRODUCTS REALLY ARE"

"I used your poultry products and found them very good and many of my friends ask me about it. I have only used PHEN-O-SAL and AVITONE, but my chicks are 100% better this year than other years.

"Now that I know what it really is, I feel as though I want to work for you selling your products on the road. I am sure I can make a good sale on it.

"I am ready to start at once. I have been in chicken raising business for the last ten years."—HARRY SAVA, West Allis, Wis.

* * *

"It is our plan after hatching season is over, to cover our entire territory on poultry culling and worming."—Lovell Accredited Hatchery, Fenton Lovell, Morland, Kans.

* * *

Mrs. Ruth Marshall, Cordova, Ill., writes: "I want to try your PHEN-O-SAL. It is so highly recommended by many women who raise chickens."

Chicken Pox Now Easily Prevented VACCINATE NOW

With Dr. Salsbury's Chicken Pox Vaccine

In powder form, mixed easily with accompanying liquid. Brush complete for vaccination.



Vaccination Increases Egg Production

Last year Connecticut conducted an experiment on Chicken Pox Vaccination with the following results:

Hens in 142 vaccinated flocks laid 163 eggs per hen during the year, while the hens in 89 flocks not vaccinated produced 158 eggs each. The flocks averaged 500 birds and the extra five eggs easily paid for the vaccine and profit besides, to say nothing about the worry and the risk of infection.

None of the flocks vaccinated in Connecticut showed any signs of Chicken Pox during the year.

See that the Chickens in your flocks are vaccinated this year.

With Dr. Salsbury's Chicken Pox Vaccine

Produced under Government License No. 195

CODE	DOSES	RETAIL PRICES
Pox	100.....	\$ 2.00
Hen Pox	500.....	7.50
Henry	1000.....	14.00
Hot	2000.....	26.00
Hope	5000.....	50.00

(Use the Code only when ordering by telegraph.)



HOW TO HANDLE THE WORM PROBLEM IN POULTRY

(Continued from page 5)

is the most powerful and certain medicine for removing round worms and is perfectly safe if properly balanced with other drugs. Dr. Salsbury's WORM CAPS is a balanced worm treatment and that is why there is a minimum amount of setback and very little loss in growth or production following the use of Dr. Salsbury's WORM CAPS.

Growing birds should be treated early to remove the worms that are developing. Mature birds should be treated to remove the worms and prevent the premises from becoming infested with more worm eggs.

AFTER THE WORMS HAVE BEEN REMOVED, WHAT?

The worm eggs are everywhere in the poultry yard. Every time the chicken picks at dirt or eats feed that has been mixed with dirt, she is liable to pick up from one to a hundred or more worm eggs. Many of these will develop into worms if proper precaution is not taken. For the prevention of worms use AVI-TONE in the feed twice a week. Many years of experience in thousands of poultry vouch for the efficiency of this treatment as a practical and economical means of keeping down worm infestation.

The AVI-TONE contains Kamala and Nicotinic effective against tape and round worms but it also contains tonics that build up the system and neutralize the poisons mentioned by Dr. Ackert, that are present in all birds infested with worms. It is not enough to use merely a worm preventing medicine in the mash. One must use a properly balanced worm preventing medicine,

one that not only retards the worms but increases the vitality and vigor of the chickens and overcomes the poisons that are present.

FLOCK TREATMENT FOR WORMS

When it is not practical to give individual treatment, large doses of AVI-TONE have been found very satisfactory as flock treatment. It is mixed with the moist mash and fed a certain number of days each week. This does not in any way interfere with egg production but on the contrary builds up the disease resistance, the general vitality and vigor and as a result the egg production is increased. If there is any complication such as intestinal inflammation due to chronic coccidiosis, microscopic tape worm infestation, etc., use the PHEN-O-SAL treatment to heal the bowels while the AVI-TONE is acting on the worms.

AVI-TONE has been found the most effective preparation for the control of microscopic tape worms and the various species of small worms that are hard to see without a microscope. It contains eleven drugs and no fillers and acts on the worms from every possible angle.

MINERAL OIL PRESERVES EGGS

Mineral Oil seals and preserves between 1,500 and 2,250 dozen eggs an hour in a new electrically driven machine for processing eggs, reports the Science News Letter. The eggs remain good for more than a year.

* * *

Chancellor and Miller of the St. Ansgar, Iowa, Hatchery, are enlarging their capacity next year. This is the first year they have blood-tested and they have been unable to supply the demand for chicks.

Dr. Salsbury's

PHEN-O-SAL TABLETS



Note large tablet, actual size, all medicine.

The tried and tested medicine for Diarrhea, Coccidiosis, Blackhead in Turkeys, Fowl Cholera and Typhoid.

Contains the same ingredients as were used for intestinal disease among Soldiers in the World War.

You can stop Coccidiosis in chicks in 24 hours with PHEN-O-SAL. Use it to heal intestinal inflammation when worming. For all summer complaints in all poultry. Order now!

	Retail Prices
50 Tablets	\$.50
125 Tablets	1.00
300 Tablets	2.00
500 Tablets	3.00
1000 Tablets	5.50

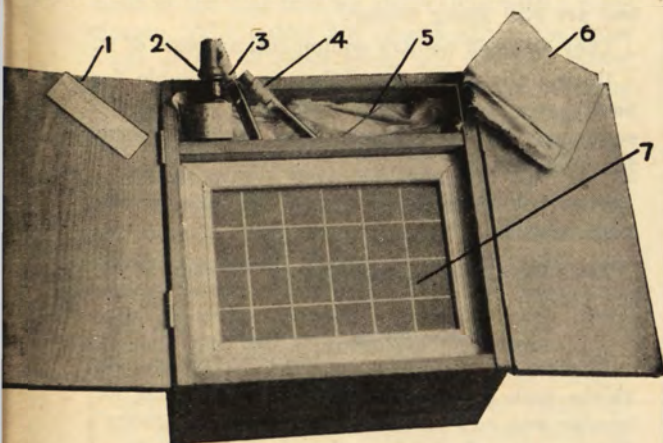
Can be used in water, feed or milk, in any kind of container.

Test Your Flocks for B.W.D.

Laboratory examination of chicks sent in from many parts of the country last Spring showed that B.W.D. is by far the most serious handicap to baby chick raising and gives the hatcheryman more grief and losses from replacement than all other conditions combined. Eradicating B.W.D. by testing is therefore the greatest problem the hatcheryman has before him at this time. It can be done. Many hatcheries have done it. Some states are nearly free from the disease.

You can prepare to clean up B.W.D. in your community by conscientious, careful, persistent testing. Don't expect to do it all at one time but keep on testing until all the reactors have been removed. A war is not won by fighting one battle. It is won by fighting one battle after another until the last enemy has been vanquished. Don't give up on White Diarrhea Testing but start your program now and follow it through.

More information will appear in the August issue of the Messenger. Special literature may be had on request.



(1) Slide for transferring blood from the hen to the reflecting intensifier; (2) 100 tests Antigen; (3) Positive test serum; (4) Negative test serum (to acquaint you with typical reaction); (5) bleeding needle and pins for stirring the blood and Antigen mixture; (6) Gauze for polishing the intensifier; (7) Reflecting intensifier where blood and Antigen are mixed.

The Fool Proof B.W.D. Testing Cabinet, a simple cabinet that maintains a uniform heat. Does not require an electric current. The reflecting surface intensifies the reaction and the constant temperature speeds it up.

This outfit greatly increases the speed, accuracy and ease with which you can perform your ANTIGEN Test.

Before you start testing, try this Cabinet and see how much easier your testing work will be.

Cabinet complete with check test fluids, 100 tests ANTIGEN and complete instructions, \$5.00.

ANTIGEN

The speed and accuracy of your Antigen Testing depends in no small degree upon the Antigen you use. Dr. Salsbury's ANTIGEN is a heavy suspension, greatly improved ANTIGEN. The reactions are easy to read, the results are clear cut. Dr. Salsbury's ANTIGEN is made from 20 or more strains of germs that have been found extremely accurate on check tests.

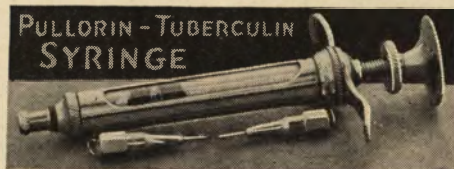
Each batch of Antigen is tested by positive and negative tests before it is released. The germs are killed so that if the ANTIGEN is spilled it cannot cause disease. Safe, sure and active.

For special literature on testing and prices to hatcheries, write today to Dr. Salsbury's Laboratories, Charles City, Iowa, or call in your state representative.

PULLORIN

The highly specific test fluid produced under U. S. Government license for the wattle test for B.W.D. Small quantity injected in the wattle causes a swelling in the infected birds in 18 to 24 hours. Easy to do. Very rapid test to perform. Write for special quantity prices.

The PULLORIN SYRINGE of steel and glass, accurately gauged syringe



with two needles suitable for tuberculin or pullorin testing. Very durable syringe that will last a lifetime. Holds 2 c.c. Needles are suitable for wattle injections. Price \$3.50.

Sex-Link Breeding for Early Broilers

Elmer H. Wene at Vineland, N. J., breeder and hatcheryman, with a hatching egg capacity of 450,000, reports business as good this year as last. Mr. Wene has developed his own strain of S. C. W. Leghorns that are noted for size and high egg production. They lay a large, pure white egg 24 ounces or over.

Mr. Wene is a business getter, and, in order to supply the broiler poultrymen with fast growing and quick developing broilers, hatches chicks from special cross bred matings, the Wyan-Rocks and the Bram-Rocks that will weigh up to 3 lbs. at 10 weeks of age. The Wene Wyan-Rock is a cross of White Wyandotte hens with White Rock cockerels. The Wene Bram-Rocks are from White Rock hens and Light Brahma cockerels.

Mr. Wene is not only noted as a poultry and hatcheryman in New Jersey but holds several important offices, including presidency of the State Board of Agriculture.

M. B. Potratz reports that Mr. Wene has the longest hatchery he has ever seen. It is 500 feet long (one-tenth of a mile) and well kept. Mr. Wene is a year around hatcheryman that has a hatch off every Thursday regardless of what date it comes on.



Wm. Goldsmith is proprietor of the Pleasant View Poultry Farm and Hatchery, breeder of Blue Ribbon Single Comb White Leghorns. The accompanying photograph shows the type of bird Mr. Goldsmith breeds. His ribbons are numbered by the hundreds. There are many silver cups in his collection of winners.

Service to Wisconsin Chick Customers

By W. S. WILSON

With the hatchery business expanding by leaps and bounds in Wisconsin, it behooves every hatcheryman to be on his toes for sales and service ideas, that will be in keeping with the speedy growth of his business.

There are too many hatcherymen who are open during the hatching season only. They buy the eggs, set them, hatch what they can, sell them for all they can get, and in May or June, lock their doors and go on a vacation, after a "strenuous" three months work.

On the other hand, let us throw the spotlight on the Wausau Hatchery at Wausau, Wis. There are two partners, a hired man, and a bookkeeper. And each of them is kept busy. One of the partners makes a service call on each lot of chicks sold, before they are 3 weeks old. Serious troubles are often checked. This personal service to their customers has built a confidence that cannot be exploded by mere competition. They have sold six carloads of poultry feeds this spring, and are still going strong.

They also sell poultry equipment, and lots of it.

During the entire year, they are available for poultry service, and their feed, egg, remedy and equipment department, pays them large dividends for their efforts.

They hold their prices up and are on a strictly cash basis.

Let's have more of this kind of Hatchery Service. It pays.

"I must tell you about your PHEN-O-SAL. My chicks took sick and I did not know what the trouble was, so I called on Mr. Schmidt, Salsbury's Serviceman. He told me they had coccidiosis. I bought a box of PHEN-O-SAL and it gave the best results I ever had. I thank you and your serviceman."—G. A. GOOSEN, Corn, Okla.

* * *

The Sadie Stouffer Hatchery at Waddams Grove, Ill., are maintaining a good business throughout the entire season. Dr. Salsbury's remedies have helped increase the livability of their chicks in a very satisfactory manner and have helped keep their breeding flocks in a good state of health.

* * *

Mr. and Mrs. Otto Zorn jointly manage the Zorn Poultry Yards of Brillion, Wisconsin. It is mighty fine to see a couple produce results with their poultry such as Mr. and Mrs. Zorn have done and we wish them an abundance of success in the future.

Blackhead in Turkeys

Blackhead is an infectious disease of turkeys, affecting mostly birds from two weeks to five months of age, but older turkeys are not exempt from this disease. It is the most prevalent and dangerous disease of turkeys, and is caused by a parasitic organism or germ, which is microscopic in size.

The term Blackhead is really misleading, because a great many turkeys die from this disease where the head does not turn dark. The most prominent symptom of Blackhead is a diarrhea, frequently of a sulphur or mustard color. The birds appear to have ruffled feathers, a drooping appearance, lack of appetite, are inactive, and lag behind the rest of the flock.

Upon a post mortem examination of a bird with Blackhead, you will find the liver somewhat enlarged, with yellowish green blotches or spots of varying size and shape, which are depressions or ulcer-like. Upon opening the two blind guts, you will generally find one or both of them diseased, containing a cheesy substance.

In controlling this disease, we must not lose sight of the fact that we are dealing with a germ disease. The germs are passed off in the droppings of the affected birds, and frequent cleaning and disinfection of the houses, feeding troughs, drinking fountains, etc., is important.

It has been found by investigators of this disease that worms play an important part in its development. In other words, the fewer worms you have in your turkeys, the less trouble you will have with this disease. You will find turkey raising more profitable if you will raise your birds on clean ground, especially away from chickens, and use a preventive for worms.

As soon as your baby turkeys are old enough to drink, use one level teaspoonful of PHEN-O-SAL to every gallon of drinking water, milk, or both, as an intestinal antiseptic to aid in preventing digestive disturbances and Blackhead.

When baby turkeys are two weeks old, commence using AVI-TONE in the mash to keep down worm infestation. Use AVI-TONE regularly as a tonic and worm preventive. Watch the droppings carefully and at the first signs of trouble, use full doses of PHEN-O-SAL in all the drinking water.

NOTE ON PHEN-O-SAL TABLETS

On page 11 of the June issue of the Messenger occurred an article describing the use of PHEN-O-SAL Tablets for individual treatment of sick turkeys. Further experiment has shown that best results are obtained by dissolving the PHEN-O-SAL Tablets in water before they are given to sick turkeys.

THIS HAPPENED IN ARKANSAS

"Why don't you advertise?"

Village Storekeeper: "No siree, I did once and it pretty near ruined me."

"How was that?"

"Why, people came in and bought dern near all the stuff I had."

* * * *

"Please send me your Manual on Poultry Diseases. I have used your vaccine and have had very good results with it. Thank you."—James M. White, Louisville, Ohio.

* * *

"I like your ANTIGEN and have had good results with it."—R. E. Henry, New Hampton, Iowa.

* * *

"I had a turkey nearly dead from what my neighbors called Blackhead. I mixed some PHEN-O-SAL and gave him three different times and he got all right again."—Mrs. S. Walden, Camp Crook, S. Dak.

* * *

E. L. Wahl has the outstanding Brown Leghorn flock in Mitchell County and since using Dr. Salsbury's AVI-TONE and PHEN-O-SAL has had good healthy stock and has increased their egg production.

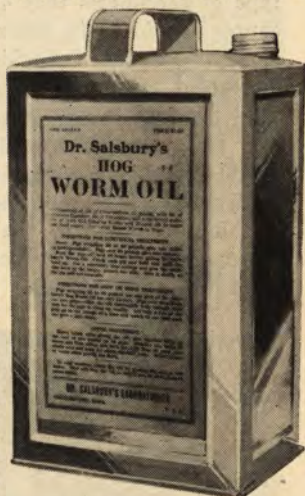
For Worms in Hogs

Dr. Salsbury's HOG WORM OIL is an outstanding product. May be used in the slop or for the feeding of each pig. Worm your growing pigs and have better growth and healthier shoats.

Dr. Salsbury's
HOG WORM OIL

(Retail)

Per Quart.....\$2.25
Per Half Gal... 4.00
Per Gallon..... 7.50



I have used your HOG WORM OIL for removing round worms in pigs for a number of years and I find that it is very easy to use and it certainly gets the worms.

Our pigs always thrive better after they have been wormed, and your worm medicine certainly has helped me raise healthy hogs.

Yours very truly,
GEORGE WEBER.

Laboratory Diagnosis

Laboratory diagnosis is conducted free of charge on specimens sent to the laboratory at Charles City.

Sick chickens may be shipped in an open crate with an abundance of straw or other absorbent material in the bottom. Needless to say, the bottom should be tight. They may be expressed as live poultry.

Baby Chicks are sent in a similar way.

Chickens or chicks that have recently died may be wrapped well and sent special delivery. As summer and hot weather comes on, they should be

packed in sawdust and a few chunks of ice. This may also be put in a candy bucket and the original cover nailed back on.

In laboratory examinations, microscopic and bacterial tests are made to determine the exact nature of the disease. Accurate findings simplify the method of treatment. Do you know that when you try this and that for your chickens and it doesn't do any good, it usually means that you are not treating for the right trouble? If you knew the exact cause, you could get immediate response.

CHRONIC COCCIDIOSIS

"We are sending a few live chicks for examination. Quite a number of these chicks are small and stunted. The flock is not uniform. Losses have been about 10%. Kindly reply direct to our customer."—Kenyon Chick Hatchery, Kenyon, Minn.

Our Report:

Examination of the chicks sent in by the Kenyon Chick Hatchery showed a chronic type of coccidiosis. The intestines were not greatly inflamed and on post mortem examination we did not find very much out of the way, but when we put some of the material from the entire intestinal tract under the microscope we found lots of coccidia.

Usually coccidiosis kills chicks quickly. They have bloody droppings, etc., but there is a chronic type of coccidiosis that does not kill quickly but causes the birds to become stunted and develop slowly. Finally the chicks die from lack of strength.

In treating these chicks I would suggest that you first give them a dose of Epsom Salts to clean out the intestinal tract and put them on PHEN-O-SAL to rout the infection and heal up the intestines. Use the PHEN-O-SAL in full strength to start with because these chronic cases need the full dose.



PROTEIN POISONING

This chick developed its peculiar attitude experimentally on a heavy protein diet and in absence of vitamins. Well balanced rations prevent troubles of this kind.

AN ACCURATE DIAGNOSIS IS HALF THE BATTLE

"We are sending two chicks for a laboratory diagnosis. Kindly report as soon as possible."

—Wenger's Hatchery.

Our Report: Examination of the two chicks showed a constipated condition with enlarged gall bladder and inflamed kidneys. No coccidia were found. These findings indicate a poisoning of some sort. Possibly the chicks are eating something putrid and unwholesome. Look into the feeding, cleanse their intestinal tract and then heal their bowels with PHEN-O-SAL.

The Following Letter Was Received a Week Later

"I was very much pleased with the report you gave of the two chicks sent you several days ago.

"I had sold 200 pullets about 5 weeks old and they were in fine shape. In about 10 days the folks reported them dying. One local veterinarian on examination called it "cholera." Another could not find anything wrong. ———— Lab. at

——— called it coccidiosis. When I went to see them they were eating maggots from a bunch of old dead hens and I told them that was what was killing their chicks. Your report of eating impurities agrees exactly with conditions.

"I thank you very much and I will try to send you all the business I can in the future.

"WENGER'S HATCHERY,
"South English, Iowa."

"I am just in receipt of your POULTRY HEALTH MESSENGER. I am very glad to get this and hope you will keep my name on your mailing list.

"Would it be possible to get 15 additional copies so that I may distribute them to the officers and directors of our Eastern Shore Poultry Association?

"Thanking you in advance, I am

"Very truly yours,

"W. O. STRONG, Co. Agt.

"Onley, Va."



TUMORS OF THE SKIN

A peculiar tumorous condition of the skin is sometimes seen in growing birds. Good nutrition and good tonics sometimes overcome this trouble.

INTESTINAL INFLAMMATION

Cook's Hatchery, Spirit Lake, Iowa, submitted a chick from one of their customers stating there were 15 or 20 chickens acting this way and more are going down. No treatment is being given until a diagnosis has been received.

Report: The White Rock chick was found to be thin and in run down condition. Post mortem examination showed the bones to be soft, the heart weak and flabby and the intestines greatly inflamed.

The intestinal inflammation is undoubtedly the fundamental cause back of this trouble. I would suggest that you treat this flock as follows: Use three teaspoonfuls of PHEN-O-SAL to each gallon of drinking water and keep this up for a week or more or until the trouble abates. Then use AVI-TONE in a moist mash at the rate of 5 pounds to each 100 pounds of mash and give the chickens all they will eat of this every day for two weeks. Also see that they have plenty of oyster shell, green feed and things of that sort. The combination of PHEN-O-SAL and AVI-TONE has been very successful in controlling these cases of intestinal inflammation and run down conditions such as these birds have."

THE REAL SALESMAN

One who has self-confidence, but does not show it.

One who can be courteous in the face of discourtesy.

One who takes a firm interest in his firm's interest.

One who keeps his word, his temper, and his firmness.

One who wins respect by being respectable and respectful.

One who turns up with a smile and still smiles if he is turned down.

One who understands people and can make himself understood by people.

One who has a steady eye, a steady nerve, a steady tongue and steady habits.

One who is silent when he has nothing to say and, also, when the customer has something to say.—Exchange.

POULTRY DISEASES CONQUERED

Mrs. Thad Stouffer, Stouffer's Hatchery of Lena, Ill., expects to operate all summer and fall. A demand for chickens is running very good. Dr. Salsbury's remedies and free service have been a great help in conquering diseases and customers look to Mrs. Stouffer for help and appreciate the service she renders.

* * *

"Some time ago my chicks took sick. Mr. Schmidt, the service man, called on me and he told me they had the Canadian flu, so I bought a bottle of CAM-PHO-SAL. I used it according to directions and it stopped my trouble right away. I feel that I can assure the poultry industry that if they will tell their troubles to Dr. Salsbury's Service man, they will obtain satisfactory results."

—D. C. KROEKER, Corn, Okla.

* * *

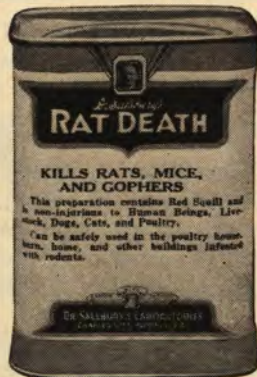
"Just finished reading a copy of your new publication, 'Dr. Salsbury's POULTRY HEALTH MESSENGER.' You are to be congratulated on this splendid and helpful publication."—THE SMITH INCUBATOR COMPANY.

Kill the Rats



Rats are a great menace to poultry raisers. Rats breed rapidly during the summer and by next Fall the poultry yards will be fairly overrun with rats. Get them now before it is too late.

The above photograph shows a rat just before death after having taken some of Dr. Salsbury's RAT DEATH. Notice the paralysis of the legs. This together with a nervousness is typical of death from Dr. Salsbury's RAT DEATH. Each batch is tested for killing effects on rats and for safety to other animals.



Complete instructions for using on each package. Full 4-oz. can, 50c.

Poultry Production in the Ozarks

By R. F. SMALLEY

Southern Missouri Representative

Notwithstanding low priced eggs and slow demand the past season for chicks, 1931 has been a good year for Mr. and Mrs. Wylie Hutchinson, Thayer, Mo., proprietors of the Midway Hatchery & Poultry Farm.

The Midway Farm derives its name from its location midway between Thayer, Mo., and Mam-



moth Springs, Ark., on U. S. Highway 63. It is a typical Ozark poultry farm, hilly but well drained and beautiful.

The location probably accounts for the excellent business the Hutchinsons have enjoyed this year, practically all of their trade being from local territory, Howell and Oregon Counties in Missouri and Fulton and Sharp Counties in Arkansas.

In a limited way these enterprising poultry people are applying the Ford idea of production to the poultry business. The idea is to produce the eggs to supply their 12,000-egg hatchery, raise their own pullets and prepare the broilers for the table in their own fattening plant.

GOOD GAINS AT LOW COSTS

Typical of the results of the business-like methods practiced on this farm, out of 1,068 White Leghorn chicks placed in two brooder houses, at seven weeks of age, two hundred of the cockerels selected for the fattening batteries averaged 22 ounces each in weight. The death loss for the entire lot was less than 3 per cent.

"The margin of profit on these chicks is excellent," said Mr. Hutchinson. "Feed prices are low and getting lower. The feed cost of producing them has not exceeded 6c each up to now. We expect to own our pullets clear when the cockerels have all been marketed."

COMMERCIAL FEED IS EFFICIENT

Mr. Hutchinson does not attempt to produce feed for his poultry with the exception of milk, which is derived from his herd of dairy cows. He

uses standard commercial feed. When asked if he considered commercial feeds more economical, he replied, "Not cheaper but more efficient. No person can specialize in too many subjects. We have all we wish to do to take care of our poultry without worrying our minds about formulas. We prefer to leave that to the feed specialists."

That the poultry on this farm gets proper management is unquestionable. The poultry speaks for itself in this respect.

According to Mr. Hutchinson poultry and dairy cows still offer the best opportunity to the farmer of the Ozarks. "The Ozarks farmer will learn this finally," he said. "Then he will treat poultry raising and dairying as a business rather than as 'sidelines'."

PRACTICAL HELPFUL POULTRY SERVICE

H. D. White, managing the Polo Hatchery, is another Salsbury enthusiast in Illinois. He emphasizes the fact to his flock owners and customers that proper medication for the prevention and control of disease is just as important as good feeding and other management practices. Results this year are proving the soundness of his advice and winning him more and more friends under his policy of "practical, helpful poultry service."

* * *

CANNIBALISM EASILY CONTROLLED

"The only trouble in chicks we have encountered to date is cannibalism and we have had fine success in handling it with Stop Pick. We have just ordered out another dozen boxes."—C. D. Goldner, Genoa Mills, Genoa, Ohio.

* * *

Tests of 150 gasoline "dopes" by the U. S. Bureau of Standards showed that all were ineffective.

FLOCK WORM TREATMENT IN TABLET FORM

The latest discoveries in concentrated drugs for poultry is Dr. Salsbury's AVI-TABS for chickens and turkeys. A tonic in tablet form that also gets the worms. One tablet for five birds. It is easy to give a flock treatment with AVI-TABS. For every five birds, dissolve one tablet in a little water and use this to moisten the mash. Repeat this treatment for five mornings.

\$1.00 pays for entire 5-day treatment for 100 birds. Larger flocks at lower cost. You will find AVI-TABS the most convenient tonic and wormer to sell across the counter.

Retail Prices on AVI-TABS:

100	.....	\$1.00	400	.....	\$3.00
200	.....	1.75	1000	.....	7.00

Write for Special Price to Dealers

Do You Advertise in Your Local Paper?

Many hatcherymen are finding it profitable to keep their message before their home people by advertising regularly in their home town or county seat paper. To help hatcherymen bring this message before their prospective customers in a clear cut and vivid way, we have prepared a number of Ads which may be had in the form of mats ready to run. These are two inches wide and the depth varies with the subject matter. The following are now available:

Dealer Ad No. 1—"Coccidiosis no longer feared." Tells about the treatment of coccidiosis with PHEN-O-SAL. There will still be trouble from coccidiosis in late hatched chicks in late Summer and early Fall.

Dealer Ad No. 2—"Tell us about your chick troubles." A general announcement that you are ready to service flocks and help poultrymen with their troubles.

Dealer Ad No. 3—"Vaccinate for roop, cholera and Chicken Pox,"

brings out the fact that you are ready to take care of the vaccination problems in preventing these diseases.

Dealer Ad No. 4—"Chicken Pox now easily prevented," urges the poultrymen to come to you for information regarding vaccination.

Dealer Ad No. 5—"Are your chickens wormy?" This ad tells about the ravages of worms and the benefits obtained by worming with Dr. Salsbury's WORM CAPS.

These mats may be had free for the asking. Keep up your advertising program during the Summer and Fall months. Tell your customers about the necessity of worming, vaccinating, etc., to prevent Fall troubles and it will be much easier to conduct your service department. Stock your shelves with items you advertise, put up the window display and use a complete tie-up that will net you good returns in your business.

**Here is the
New Window
Display**

**Now Ready.
Ask for One**

FOR BEST RESULTS **TESTED AND PROVED**

Dr. J.E. Salsbury's Economical Method

REMOVES and PREVENTS RETURN OF WORMS

FOR CHICKENS AND TURKEYS

WORKS BOTH WAYS

FLOCK TREATMENT **INDIVIDUAL TREATMENT**

Dr. Salsbury's AVI-TONE FOR MIXING IN THE FEED

Dr. Salsbury's KAMALA MOOTIME COMBINATION WORM CAPS

Dr. Salsbury's WORM CAPS

START CHICKS ON AVI-TONE
RAISE THEM ON AVI-TONE
GIVE AVI-TONE TO HENS

EASY TO GIVE
SURE OF RESULTS
EASY ON BIRDS!

Banish Worms and Have a Healthy-Profitable Flock

WORMS & POULTRY HEALTH INSURANCE EXPRESS ROUND AND TAPE WORKS

THE SUN NEVER SETS ON SALSBUURY SERVICE

DR.
**SALSBUURY'S
COMPLETE LINE
INCLUDES**

AVI-TONE

Flock warmer and worm preventive. 100% medicine—no fillers.

WORM CAPS

A balanced individual worm treatment properly coated. Easy on the birds.

PHEN-O-SAL

In tablets, or powder form. Stops losses from intestinal diseases, cholera, coccidiosis, etc.

CAM-PHO-SAL

The perfect spray for all kinds of colds.

LOUSE DEATH AND LOUSE POWDER

—always get the lice.

BACTERINS

(All triple strength)

Chicken Pox Vaccine

—certain immunity against Pox or Sore Head.

Mixed Bacterin

—to prevent colds and roup of all kinds.

Cholera-Typhoid Bacterin

—immunizes against these diseases.

Antigen and Pullorin

—for quick, accurate testing for B.W.D.

All kinds of Instruments

From the far corners of the earth, from every clime, and from poultry people everywhere comes the steady demand for Dr. Salsbury's Products to stop and prevent poultry troubles.

In the Dr. Salsbury's Laboratories "quality" is not an empty word, but means 100% pure drugs in every Salsbury preparation. And in Dr. Salsbury's Bacterins it means **triple strength**.

This outstanding feature of the Salsbury line is now recognized the world over. Below we note ten of the many distant countries recently reported:

1. from China

"I need some Antigen or Pullorin to carry on B.W.D. Tests. Let me know what equipment is necessary."—P. E. Kwoh, Tsingtao, China.

2. from Africa

"Please send me your Mixed Bacterin with glass syringe for injecting. Also Manual on Poultry Diseases."—I. V. Adjakwa, Gold Coast, West Africa.

3. from Guiana

"Thank you for the vaccine you sent me."—H. M. Hermelijn, Surinam, Dutch Guiana.

4. from Roumania

"Send me Worm Capsules for round and tape worms in chickens."—C. G. Fissier, Jud Ifloo, Roumania.

5. from West Indies

"Since I have been using Avi-Tone, my flock has been in better health. I will send another order shortly."—M. M. Abrams, Trinidad, British West Indies.

6. from India

"Kindly send me Phen-O-Sal, Cam-Pho-Sal, Chicken Pox Vaccine, Cholera-Typhoid Bacterin."—Mrs. G. Allison, Calcutta, India.

7. from England

"Send me some Kamala Nicotine Combination Worm Caps, the same as I used last year."—E. M. Beck, Hereford, England.

8. from Philippines

"Kindly send me Phen-O-Sal and Cam-Pho-Sal."—John E. Mapua, Jr., Manila, P. I.

9. from Central America

"Thank you for your prompt service on Avi-Tone. Send me some more Avi-Tone, Worm Caps and Louse Death."—S. B. Steavens, Balboa, Canal Zone.

10. from Mexico

"We have been ordering various poultry remedies from you and they seem to be alright."—Granja Avicola, Santa Barbara, Mexico.

Write for Your Free Copies of Dr. Salsbury's

POULTRY HEALTH MANUAL

A valuable treatise on poultry diseases and their successful treatment. New ideas for handling sick fowl of all kinds, and for improving flocks for higher production. The best of its kind published, just off the press. How many shall we send you for free distribution to your customers?

Diagnosis and Consultation By Letter FREE. Address,

DR. SALSBUURY'S LABORATORIES

1001 Water Street

CHARLES CITY, IOWA, U.S.A.

"A NATION WIDE SERVICE"



DR. J. E. SALSBUURY
Specialist and
Writer On
POULTRY
DISEASES