

"A NATION-WIDE SERVICE"

Dr. Salsbury's POULTRY HEALTH Messenger

VOL. 1

DECEMBER, 1931

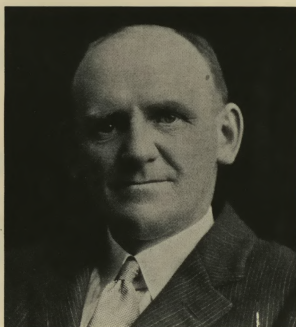
NO. 8

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1931



1932



Here's Wishing You
A Happy Christmas
and a
Prosperous New Year

May December's higher prices renew your confidence in the poultry raising business and make us all feel more secure and happier. May the year 1932 bring to us abundant opportunity to make good, and to enjoy our work more than ever.

Dr. J. E. Salisbury

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

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VOLUME I

DECEMBER, 1931

NUMBER 8

ALL NIGHT LIGHTS

By W. H. MATHEWS, Freeport, Ill.

To dispel some doubts, arguments, false and ignorant statements, etc., as to what all night lights are, do, do not do, the following statement is penned:

In the first place when "all night lights" are spoken of understandingly only a moderate dim glim is meant. Only enough light is meant to enable hungry birds to see feed, water and, finally, either the front of the roosting platform or first roost.

What is not meant are two or three 20 watt or brighter lights like a gasoline lantern. What is meant is a light of not to exceed 15 watts in a 20x40 coop, or only a wick, oil burning, barn-lantern. Whatever is used is placed over, or where it shines on the feed and water. It is useless to attempt to use all night lights unless water and good egg mash are plentifully supplied.

Now what do those lights do?

To answer that we must go to the condition of the birds. Wormy or birds otherwise in ill health have almost no appetites. What appetites they have only serve to urge them to eat partly enough for the worms. Certainly they are unlikely to eat enough to enable them to assimilate enough to make an egg out of what the worms leave. Therefore the birds to be given all night lights with production expectancy, should be wormed and toned up with some such worm control product such as is AVI-TONE. When this is done we may assume we have production expectancy.

Assume that has been done that birds are being given their starting "five day AVI-TONE treatment."

By the very nature of things hens in a molt, and undeveloped pullets also have very little appetite even when in the height of physical health. Hence both have a tendency to eat a teaspoonful or two of feed and go to roost. In about two hours (approximately) they are hungry. And being hungry are restless and uneasy and uncomfortable and of poor circulation till the appetite is

appeased with another 2 teaspoonfuls of feed and water. After which they roost and rest again.

When we say that hens take a long period to molt and make new feathers we speak only of our past experience. We mean that when only two hours of each 12 hours are used each night it takes so many days to bring hens through the molt or to develop late pullets.

Most assuredly we do not mean that when such birds use the whole night for assimilating food that they take that many days for the molt. Nor do we mean that hens starved for 10 hours out of every 12 hour night make better breeders than those not starved. They don't, and we all know it. And it is to enable such late pullets and backward pullets and molting hens to assimilate food 12 hours a night and have good nutrition and good circulation, that we use "all night lights."

As fast as a bird passes a given development condition, or molting condition, she at once develops an appetite by leaps and bounds. She eats more and more and stays asleep longer and longer without waking. She soon comes into lay and does not know whether there are lights in the coop or not, because she sleeps all night. Hence we can make the following flat statement:

Unless they are bright enough to wake her, all night lights can have no effect whatsoever on a hen in production. She simply does not know they are there. She is full, happy, contented, comfortable and asleep. Hence, all night lights, as previously explained, can be turned on and off at will with no effect on hens or pullets in production.

What can be affected is the rate of increase in production due to the fact that pullets still eating less than an all night supply of food, will be slowed up in development due to their inability to replenish their food supply till morning light appears.

Hence we may disregard all stories of "spring molts," "breaking down," "burning out," and all

the other goblins. Only such things will happen to the bird as will be due to the way you use the ration you are offering. If it is a good ration use it right and have no fear. If it's a bad ration you will not help it by misusing it.

Don't lay to lights the faults due to poor flock health that can be corrected by AVI-TONE and PHEN-O-SAL, for instance.

Winter production is another modern but necessary need for profitable flocks. But it is more necessary to secure and keep flock health in winter production than in summer yield. Hence pay



Macon Hatchery (Missouri). A blood tested flock to be proud of.

greater attention to flock health in winter than in spring or summer.

Therefore, rely more on AVI-TONE and PHEN-O-SAL in winter production than at any other time. But use what is needed to insure health no matter what the season.

In conclusion I ask: which offers greatest hatching possibilities, a case of eggs from a flock laying 50% which has been doing so all winter or a case from a flock so badly fed, housed and conditioned that they could not lay above 10% all winter and are not up to 50% yet?

Tests show that as the first flock had to be the healthiest to do what it did, its present health also insures greater hatchability now. Which is all we can ask.

Many flock owners expect a rise of from 5% to 10% to 50% production in two weeks. Personally I believe all night lights warrant no such immediate production expectancy.

As a rule, in my experience there is little production increase under 5 days. I do not then expect a 40% jump in 9 days more. But increases up to 50% in 3 to 4 weeks are quite common.

Naturally all increase is governed by two major factors, one is feed efficiency and the other is the starting flock health. The better the flock health and the better the feed efficiency, the quicker the rise to 50%.

POULTRY EDITOR VISITS SHORT COURSE

"Our stay in Charles City, Iowa, last week, at the clinic and short course in poultry diseases was one of great pleasure and profit. We saw the worm caps coming from the machine at the rate of 60 per minute. The PHEN-O-SAL Tablets are made at the rate of a quarter of a million a day and this does not supply the demand. A new tablet machine will be added soon.

"Much interest centered in the laboratory in charge of Dr. Eriksen who makes all the serums for roup, chicken pox, cholera, etc., and the ANTIGEN and PULLORIN for blood-testing. The intricate process of cultures was carefully explained by Dr. Eriksen. Our impression was that such a vast and outstanding institution as the Dr. Salsbury factory and nation-wide poultry service could only have grown up around medicines and products of unusual merit. We believe that if all our poultry-raising friends could have attended this clinic with us, and have seen the manufacture of honest, clean products that the cheap medicine-peddler would stay out of this county. All success to Dr. Salsbury and his great work."—V. Sizemore,

Editor Poultry Department, in Cow and Hen Journal, official paper of the Washington and Smith County Farm Bureaus, Linn, Kansas, October, 1931.

A RARE FORM OF FOWL CHOLERA (Wattle Disease)

A report of a study made in Hungary in the autumn of 1929 of a wattle disease characterized by an edematous swelling caused by the fowl cholera bacillus. In 40 per cent of the 88 cases examined in 5 flocks, the fowl cholera bacillus could be isolated from the wattles.—Experiment Station Record.

Dr. Salsbury's

DOG CAPSULES

Kill Tape and Round Worms in
DOGS

Keep Dog Capsules on hand for your friends who are dog lovers. They are easy on the dogs, they do not make them sick and they get the worms. For small dogs give one capsule, for large dogs three capsules. They are easy to give.

Retail Price, 10 capsules.....\$1.50

BRONCHITIS, DIPHTHERIA, AND COLDS TAKE HEAVY TOLL

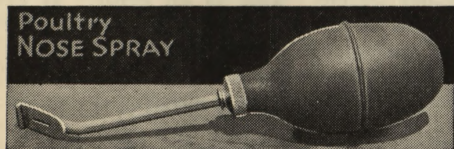
There are several forms of bronchitis, diphtheria and colds. Most of them yield to simple treatment with CAM-PHO-SAL. All of them yield to proper supportive treatment and attention to complications. Many cases of bronchitis have been stopped in two hours with CAM-PHO-SAL. CAM-PHO-SAL is not diluted when it



A complicated case of roup in which the bones of the head have become involved.

comes to you. Therefore you are not paying for water or filler. CAM-PHO-SAL is a real cough syrup, a disinfectant and a respiratory healer for poultry. CAM-PHO-SAL diluted with water kills roup germs in 30 seconds.

For birds that have a running nose—early cases of colds—show your customer how to clear it up in two days time. Simply flush out the nasal passages with Dr. Salsbury's POULTRY NOSE SPRAY, a convenient little instrument that fits in the hollow of your hands that thoroughly cleanses the nasal passages. Will save the life of many a valuable bird.



Priced to sell at retail for 85c.

For prices and sizes of packages of CAM-PHO-SAL and other medicines see Dr. Salsbury's Poultry Health Manual, dealer price list or the order blank enclosed.

THE IMPORTANCE OF THE POULTRY

Abstract of Address Delivery by Dr. J. E. Salsbury before the Short Course held at Charles City, Iowa, October 12 and 13.

Few people outside of the hatchery or feed store give thought to the vast importance of the poultry industry. Few people realize the magnitude of poultry sales in these United States alone during one year.

We can get some idea of the magnitude of our poultry industry throughout the world when we look back to the last World's Poultry Congress held in London, England, last year, where 60 countries were interested enough to send delegates and exhibits several thousands of miles.

Where fowls were raised by the dozen a few years ago they are raised in flocks of one thousand or more today. It is not a pin money business any more. Even the farmer's wife who has only 50 or 100 chickens today knows a whole lot more about the care and the necessary health program for her flock than our mothers did.

She wants to make a profit from her fowls. She is in the business to make money.

The poultry industry today totals around two billion dollars annually in the United States, and ranks first among the farm industries. With the rapidly improving methods of breeding and the care of fowls it will grow far beyond these figures soon.

When we improve the quality of a produce there is going to be a greater demand for it because there will be more consumed. To further increase and elevate the poultry business, we must look to better methods of feeding and care. Because, only by delivering to the great mass of egg and meat eaters a high grade food produce can we hope to merit greater success. One of the first steps in this program is to insure healthy, active flocks everywhere.

Since poultry and its products provide a great portion of our food, it is evident that the poultry industry is here to stay. But, you people who are in the business of hatching eggs and raising chicks, or raising poultry in general, must be alert to conditions that lower the health and quality of fowls, thus lowering the quality of meat and eggs.

In this present depression from which agriculture is suffering all over the world, we rejoice to know that the poultry industry has brought a measure of relief to many a hard-pressed farmer, because poultry provides no small part of our daily food.

City Banker (visiting the farm): "I suppose that's the hired man."

Farmer (who has visited banks): "No, that's the first vice president in charge of cows."

The Advantage of Symplifying Your Stock of Salable Merchandise

By H. G. BOS

Whether any of us care to admit it or not, the secret of retail selling and retail success which follows is a matter of **knowing how**.

In nearly every retail line we have the two kinds of merchants. Those who know, and those who don't know **HOW**.

One carries in stock everything that people in his neighborhood ask for, be it good or otherwise. The other merchant invests his money in stock that he knows, from local experience, is going to give entire satisfaction.

Take the business of retailing poultry supplies, for example. Some dealers feel that, to give a customer the old alibi, "We have something just as good," is the easiest way to lose a sale. True, we may lose a sale that way if we have no "salesmanship" about us at all. But if we keep on hand one line of merchandise for a certain specific purpose—whether it be brooder, diarrhea medicine or scratch feed—we should see that it is a good, honest value; and then **PUSH IT**. Why keep half a dozen different brands on the shelves, when one or two will do just as well?

Every retail merchant should be thoroughly acquainted with the salient features of the merchandise he is selling. If every retailer really **KNEW** all about the merchandise he carries in stock, he would not have five or six different brands of the same item. He would soon discover the best brand, and discard the others.

If Mrs. Jones were to come into your store or hatchery with a sick chicken, and tell you all about the trouble she is having with her flock, would you show her five or six different kinds of worming medicine and let her choose whichever she might think is the best?

Would you, perhaps, sell her some sort of "cure-all" that is widely advertised? Would you point to seven or eight different kinds of medicine on your shelves and give her a short synopsis of the unflinching virtues which the manufacturer of each of those medicines claimed for his product?

No, you would not do anything of the kind. You would first make a diagnosis on the sick bird, and then you would recommend the very medicine which you already **KNOW** is the right treatment for that bird. You would recommend that medicine and treatment which you are sure is the **BEST**, from your own experience.

To make a satisfied customer you always do that very same thing. Why not apply the prin-

ciple to your shelves? Keep in stock only the one or two "brands" which you know, from experience, are the **BEST**. Dealers who do that are keeping busy these days despite the "depression." Instead of staking their own reputations on this, that or the other medicine, without knowing much about the stuff, they have tried out various different brands and concentrated on selling that brand which they **KNOW** will give ultimate satisfaction.

WE ARE ON THE WAY UP

Those who persist in waiting for screaming headlines to herald the return of prosperity will find themselves conspicuously out of the picture by the time "good" times are generally recognized.

Inaction, waiting, continued talk of the present crisis (and how some caress that word!) fear at this stage, will only serve to project into the years ahead the true "losses" of this period of economic gloom. It will be in lost sales, lost customers, lessened prestige, costly regaining of customers lost by unorganized sales and service program, that the real pinch of hard times will be felt.

Don't wait for hindsight to show what should have—but was not—done. Substitute foresight, common sense, courage. Initiate a service program in your community, help your poultry customers with their poultry disease problems and talk poultry prosperity. We are on the way up—take a running start—and hop in your poultry service car and let competition do the waiting.

CORRECTION

On page 13 of our October Messenger we published a photograph of a Sunshine State Hatchery culling unit. The person to the left is identified as Elmer Skinko. This is an error. It should have been O. C. Syndergard for which error we hereby apologize.

IT STARTED AT LOUISVILLE

"Please be advised that we have been using your AVI-TONE, since the baby chick convention at Louisville, Ky., with very good results."—J. C. CLIPP & SON, Campbellsburg, Indiana.

* * *

Once folks have dealt with you, they watch your ads with new personal interest.

A New Testing Rack

DESCRIBED AND USED BY SUNSHINE STATE HATCHERIES MADISON, S. DAK.

The testing rack is an ordinary home made flat top bench. The top is 4 feet long and 18 inches wide. The legs are 2 feet 6 inches and the top is placed 2 feet from the ground. This leaves the legs stick up on the ends 6 inches and a board is nailed on here to keep the birds from sliding off the end. The picture of S. Gilbert Wood in the November Messenger gives a good illustration.

A series of ten ordinary screen or storm door snap catches are used and placed along the edge of the rack about 3 inches from the edge. Ten are used on each rack and are spaced equally. These are taped so that the bird's legs are protected.

The birds are placed on the rack on their right side and the legs are placed in the snap catch and

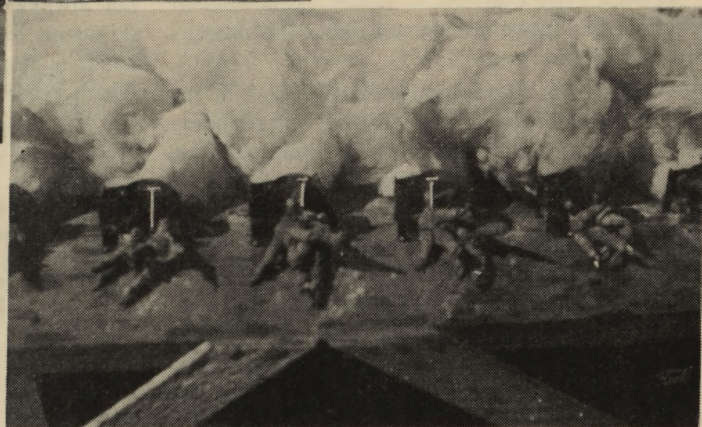
they are in the rack. They are released when finished by merely lifting up the snap catch.

We test ten birds at a time. The man testing sits on a stool on the side nearest the bird's head. He lifts the left wing, strips surplus feathers and draws a drop of blood from each specimen, mixing this with the ANTIGEN on the testing box.

For convenience we use a testing box like Dr. Salsbury's, except that we mount it on rockers and have it about the height of the rack, so that the blood may be thoroughly mixed with the ANTIGEN by rocking back and forth. We use a testing box with a glass large enough to test 100 or more birds before it has to be cleaned. This speeds up the work. We place the ANTIGEN on the glass first—10 drops. We then draw the blood and drop it into the ANTIGEN, stirring it with the slide. Further mixing of the blood is done by tilting the box back and



A close-up of the screen door hooks used to hold the feet of the birds. Photograph to the left shows one rack filled with birds. The other is ready to be filled. Below, close-up of the catches in action.



it is closed, holding the birds in place until tested. They are then released by lifting up the snap catch.

When the snap catch is closed, the opening between the catch and the table top is sometimes too large for Leghorn birds. We place a finishing nail in the center of this space and drive it down flush with the snap catch. Small legged birds are held by placing both legs on one side of the nail. Large legged birds by placing one leg on each side of the nail.

We use two men to a crew and it works fine. A helper sometimes is beneficial in facilitating the work. One man culls and places the birds in the rack and snaps their legs in the catches. The other man tests the birds and worms them while

forth on the rockers. We find that the test is more easily read when the blood is allowed to run slowly back and forth on the glass by tilting the box back and forth on the rockers. It takes only a fraction of a minute to place the 10 drops of ANTIGEN on the box and draw blood from 10 specimens. An experienced man can do this at the rate of 10 birds in less than 2 minutes. A minute or two is then allowed for reading the 10 tests. Under good working conditions we can average 100 birds an hour easily. Under ordinary working conditions found in the field we

(Continued on page 13)

Editor's Note: A rocking arrangement can easily be fastened to Dr. Salsbury's testing cabinet.

The Diagnosis, Treatment and Prevention of Fowl Cholera, Typhoid, Roup, Chicken Pox and Other Infectious Diseases*

The diagnosis of cholera and typhoid is based on the following findings. Cholera produces sudden deaths. The birds that were thought to be healthy the day before are often found dead under the roosts and on the nests. Sometimes they die while a person is watching them out in the yard. On opening a bird dead of cholera, we find the liver very slightly enlarged with a grayish or boiled appearance. Many times there are exceedingly small pin point gray spots as if the liver had been touched by a thousand hot needles. The spleen is usually not changed but sometimes may have some small grayish nodules. The intestine is full of a thick, slimy mucous. Diarrhea is green, very often there is a broken yolk material in the abdominal cavity. It is usually the best and fattest birds that die of cholera.

In typhoid, the birds linger for two or three days. The combs become pale as compared with dark to bluish combs in cholera. When the birds are opened, the blood seems thin, the liver and spleen are enlarged and very often have a bluish color. A greenish-blue liver nearly always points to typhoid. The diarrhea is usually yellowish in color and the intestines do not show the mucous seen in cholera.

Roup is easily diagnosed by the condition of the fowl and the infection found. The white, cheesy substances in the mouth, a milder inflammation that has no characteristic odor is usually of nutritional character. The foul smelling inflammation of the eyes, nose, mouth and sometimes throat is a typical infectious roup in which fowl cholera germs are usually present.

Chicken pox may affect the mouth as well as the comb, eyes and wattles and is recognized by its hard wart-like crusts that appear on any of these parts.

Tuberculosis is readily recognized by lameness in some of the birds, thin run-down condition, painful expression of the eyes. On autopsy hard, firm encapsulated yellow nodules are first found in the liver, later in the spleen and in the intestines. These nodules must not be confused with the soft fleshy pork-like enlargements more commonly caused by tumors.

Treatment

Treatment of fowl cholera should include vaccination with a Cholera-Typhoid Bacterin to build

up the internal immunity and resistance to these germs.

A lowering of the proteins in the ration, a thorough disinfection of the premises to kill the infection and the use of PHEN-O-SAL in the drinking water. PHEN-O-SAL has been very



Typical case of ocular roup. This type often goes into diphtheria. It is frequently found with bronchitis.

effective in stopping infections in which there is a diarrhea or other intestinal disorders. We do not always know how this is brought about, but it seems logical that the PHEN-O-SAL brings about a change in the alkalinity of the intestines which renders the contents an unfavorable media for the organisms to grow and develop. We are familiar with soil that is too alkaline or on the other hand too sour for plants to grow and we know that just a little change one way or the other makes a lot of difference in the plant growth. The same applies to the intestinal medication of poultry with PHEN-O-SAL for intestinal and bacterial diseases.

The treatment for typhoid is essentially the same as for fowl cholera.

The treatment for roup and chicken pox consists of vaccination to build up an immunity. If the chicken pox has just begun to appear, vaccinate with the chicken pox vaccine to stop the spread of the infection. Do not vaccinate the birds that already have pox but do so with all the others.

The MIXED BACTERIN (FOWL) builds up a resistance against the germs commonly found in roup and related diseases. In many cases it stops losses very promptly.

CAM-PHO-SAL may be used both as a spray and as internal medicine given in the mash. This preparation kills the germs and opens up the

(Continued on page 9)

* Abstract of a lecture by Dr. Sivert Eriksen at Dr. Salsbury's short course, November 12 and 13, 1931.

SOUTH DAKOTA BABY CHICK ASSOCIATION HOLDS WINTER MEETING

By MRS. ALVANA BERNARD, Secretary

The South Dakota Baby Chick Association met at Huron, S. Dak., November 18, 1931.

The meeting was presided over by President August F. Hagen of Selby. The attendance was good and the interest was very keen due to the brighter outlook for 1932 and the fact that there is less poultry and eggs in storage than any year during the past five years average.

Charles F. Hicks, assistant executive secretary of the International Baby Chick Association of Kansas City, Mo., gave an account of the activities of the International Association, the progress made possible through organized efforts of this and state affiliated associations in 36 states. At present the resources of the Organization are being thrown against the proposed parcel post rates increase, and pressure is brought to bear on those who practice unfair and misleading advertising.

The rapid development of the baby chick industry and the important part played by the South Dakota Baby Chick Association, in developing the industry in the state, has been especially accomplished through the accredited hatcheries. They have adopted a uniform breeding plan for poultry improvement, every hatchery inspected, all flocks are strictly culled for standard requirements and high production.

Prof. L. S. Kleinschmidt, director of research of the Grain Belt Mills Company, South St. Joseph, Mo., gave an excellent talk and outline for culling hatchery flocks. The most important factors to develop production being culling four times a year, with consideration given to early maturity, winter lay, rate of lay and fast molt. This is also followed with good housing, strict sanitation and proper feeding. He also outlined a simplified method of feeding, using grain and a well balanced mash before the birds all the time.

Mr. Chas. L. Drake of Minneapolis, Minn., also gave a very interesting talk on organization and co-operation. Other speakers were: O. J. Weisner, extension poultryman of the State College, Brookings; Mr. W. E. Whittemore, of Estelline, and R. H. Borrey, field inspector for the South Dakota Poultry Improvement Board, which is in charge of the accreditation of hatcheries and flocks in the state.

Mrs. Alvana Bernard, of Jefferson, secretary, states that the success of the organization, the fine work of improvement of flocks, the good meetings, etc., are due to the fine spirit of co-operation manifested by the members of the organization and the hatcherymen of South Dakota.

The next meeting will be held in July at Brookings at which time the election of officers is held.

AVI-TONE

TUNE—"My Maryland"

(Sung at Banquet Dr. Salsbury's Short Course)

The greatest product for our chicks
AVI-TONE, Oh! AVI-TONE.
Our confidence in thee is fixed,
AVI-TONE, Oh! AVI-TONE.
Forever on each hill or dale
The healthy chickens will prevail,
Your merits made our poultry hale,
AVI-TONE, Oh! AVI-TONE.

The records show what you can do,
AVI-TONE, Oh! AVI-TONE.
In every test you've proved true blue
AVI-TONE, Oh! AVI-TONE.
Our poultry's welfare safe with thee,
Health, Vigor and Vitality,
Those awful worms we never see
Because we all feed AVI-TONE.
—T. R. BALLANTYNE.

DIAGNOSIS AND TREATMENT OF COMMON DISEASES

(Continued from page 8)

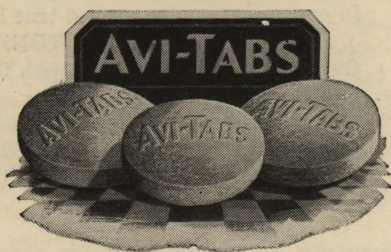
respiratory tract by loosening the phlegm. To get best results, one must have the birds confined as much as possible so that they will have an opportunity to breathe the CAM-PHO-SAL for several minutes. If the fumes are carried away by drafts or allowed to settle below the birds, then it will not do them very much good.

There is no treatment for tuberculosis. Testing with AVIAN TUBERCULIN will indicate the affected birds and they should be disposed of.

In treating for all of these infectious diseases in fowls, one must keep in mind various complications. Intestinal parasites, not only the large worms that are easily seen on opening the bird, but also coccidia, microscopic tapeworms, capillaria worms, etc., that cause a thickening and swelling of the intestinal lining interfere with nutrition and produce poisons that greatly complicate the other treatments. In flocks that are affected with roup and colds, if they are also full of intestinal parasites, little success will be attained until one treats for these parasites as well as the colds. We see repeatedly flocks that have been treated for colds unsuccessfully until the worms are removed and a tonic is introduced into the feed. Then the MIXED BACTERIN and CAM-PHO-SAL have an opportunity to function.

It is the observance of all these factors and their application by proper treatment wherever necessary that leads to success in the prevention and treatment of these common diseases.

Take These 4 STEPS to MORE and BETTER BUSINESS



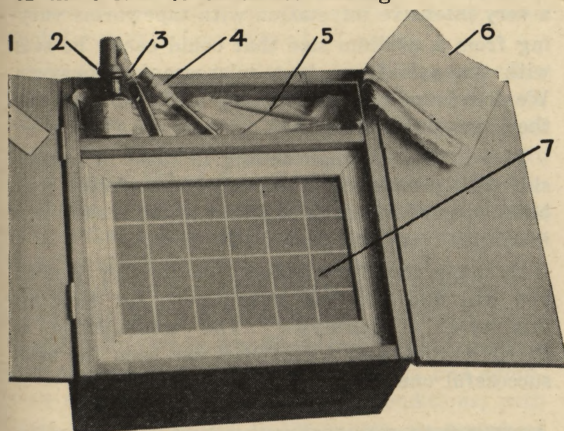
PLAY SAFE
GET RESULTS
SAVE MONEY
and
MAKE SALES



1. Use Dr. Salsbury's AVI-TABS for toning up the flock and keeping worm troubles out. A complete five-day treatment, for 100 birds, costs only One Dollar!
2. WATCH RESULTS after dissolving AVI-TABS and mixing in the mash—see for yourself what a thoroughly practical tonic and wormer will do at small cost.
3. RECOMMEND AVI-TABS to the flock owners in your neighborhood. They will appreciate the good results, and the economy in AVI-TAB treatment.
4. SELL MORE other medicine and supplies as a result of recommending AVI-TABS to flock owners who are alive to the need of a safe, good tonic during the late fall and winter months.

B.W.D. Testing Continues During the Hatching Season

While the bulk of the B.W.D. testing is completed in November, yet there are many hatcherymen who continue testing during the winter months. Some birds were out of condition early in the season, some flocks were affected with roup and colds so that reactions were not clear cut on the first test. Do you know that pullorum germs are sometimes found in the nasal passages in birds affected with colds? Other flocks are being added, too, and mated later in the season and they need testing. Some hatcherymen also find that the demand for untested stock is very low and that they must test in order to meet competition. Other people decide to put on a few tested flocks for demonstration in their own community. All of these lead to continued testing.

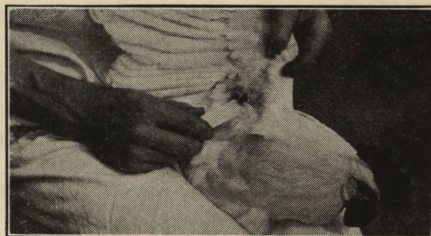


(1) Slide for transferring blood from the hen to the reflecting intensifier; (2) 100 tests Antigen; (3) Positive test serum; (4) Negative test serum (to acquaint you with typical reaction); (5) Bleeding needle and pins for stirring the blood and Antigen mixture; (6) Gauze for polishing the intensifier;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

By using Dr. Salsbury's TESTING BOX, cold weather holds no terrors as long as you have dry and protected poultry houses to test in. If there is trouble with dust, hang gunny sacks or old tent material around a corner in the house and have all the testing material in this inclosure.

Remember, that Dr. Salsbury's ANTIGEN is now prepared by permit under U. S. patent No. 1,816,026. This ANTIGEN is the standardized form that is being accepted by laboratory and state workers everywhere as coming as near meeting all the demands of large breeders as anything that has yet been developed. For high quality ANTIGEN that keeps well, shows speedy reactions and that is made in accordance with

patent regulations, be sure to use Dr. Salsbury's stained PULLORUM ANTIGEN. Extremely low prices are now in effect.



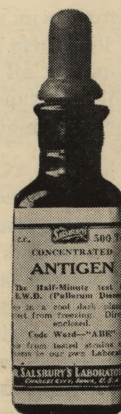
It is easy to collect a drop of blood from the wing. However, many poultrymen now prefer the European method of clipping a spike of the comb. Try this method when you have trouble with the wing.

* * *

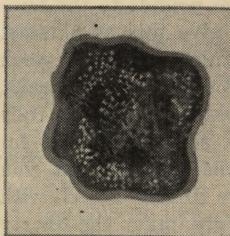
"I think we are getting good results from your ANTIGEN this year. The coloring helps in making the readings, especially where the light is not the best. We feel well satisfied with this ANTIGEN."—D. A. Wingert, Ridgeway, Mo.

"I have never been thoroughly satisfied with the ANTIGEN test until I tried your new purple stained ANTIGEN. It certainly is easy to read."—J. O. H., Ohio.

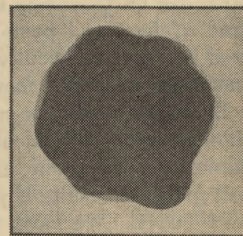
* * *



When You Mix Dr. Salsbury's Stained ANTIGEN With the Blood, Here Is What You See:



If it looks like this in from $\frac{1}{2}$ to 1 minute, the hen is a reactor and should be removed. (To be dressed for the market.)



If it looks like this, the bird is negative and should be kept.



Laboratory Diagnosis

Laboratory examination is made free of charge on specimens sent to the Laboratory at Charles City. Microscopic and bacteriologic tests are made to deter-

mine the exact nature of the disease. Report is made by letter just as soon as the diagnosis is completed.

CLEAN GROUND DOES NOT ALWAYS PREVENT DISEASES

I have 500 turkeys weighing from 6 to 20 lbs. apiece. These were started in brooder houses and on wire porches till 6 and 8 weeks old, then put on a clean alfalfa field nearly a mile away from any buildings. Only lost a few with disease all summer.

Now some are not looking right, still they don't look like they have Blackhead but I have taken the sick ones home and put them in the porches where I can see what they will work into. Now I notice the droppings are just loaded with round and tapeworms. I have never seen anything like it. What I'd like to know is how did they get the worms and what is the best and easiest way to worm them. Would AVI-TONE do, as I sure hate to lose them? They looked so nice. If AVI-TONE would be all right, could you send it C.O.D., so I will get it quicker and tell me how to use it.—Albert Peterson, Dundee, Minn.

Our Reply:

It does seem strange that turkeys kept under as ideal conditions as your turkeys apparently have, should become full of worms, but this is no uncommon occurrence. In spite of everything one can do to rotate the yards, to keep things sanitary, etc., disease germs and parasite eggs will get in. That is why we need to fight disease with drugs constantly or at least be on the look out and be prepared to do so.

AVI-TONE is an excellent worm remover and tonic for turkeys. Many large turkey raisers depend on it entirely as a worm remover. When birds are quite wormy use five pounds to the hundred of feed and preferably give this as a moist feed for five consecutive mornings the first week and two consecutive mornings the following weeks.

Since the birds are not looking as well as they should, there is undoubtedly some intestinal inflammation and our experience shows that you will get best results if you use PHEN-O-SAL with AVI-TONE. We have, therefore, taken the liberty to add 300 PHEN-O-SAL TABLETS to your order because we believe by so doing you will get best results. Use 8 tablets of PHEN-O-SAL to the gallon of drinking water for the first three days and then use six tablets afterwards until the trouble is under control. Have all the drinking

water treated with this proportion of PHEN-O-SAL. Even in cases of Blackhead this treatment has been surprisingly successful in overcoming the trouble.

PARALYSIS

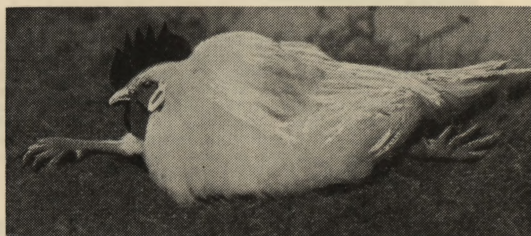
Ernest R. Newman sent in some chickens from one of his customers. These people have had a similar trouble for four years. The birds become paralyzed, become weak and finally die.

Our Report:

Examination of the chicks you sent us showed a very intensive infestation with tapeworms varying from a medium size that could easily be seen with the naked eye to a microscopic tapeworm. We also found coccidia in these birds showing that they are doubly infected.

This a very common finding in cases of paralysis. The premises are undoubtedly infested with both types of infection and that is the reason why it carries from one year to the next.

On page 13 of the Manual on Poultry Health, you will find complete instructions for handling this type of paralysis. The combination of PHEN-O-SAL and AVI-TONE has been the most successful one that we have ever used.



A typical case of Paralysis. It may come on suddenly or be quite gradual in its onset. AVI-TABS, a new combination of concentrated drug extracts has been giving splendid results in preventing the spread in affected flocks. Use it with PHEN-O-SAL and follow directions on the package.

PLEASED WITH RESULTS

"Your representative, Mr. E. Peacock, was here the other day and I tried a 25-pound carton of AVI-TONE; was well pleased with it, and sending you another order."—LeROY CHICKEN HATCHERY, LeRoy, N. Y.

Practical Poultry Health

AS SEEN BY H. W. BUTTERFIELD, Licensed A.P.A. Judge Davenport, Iowa

A premium should be placed on old-fashioned "horse sense" and hard work. A large number of theories which were to revolutionize the poultry industry have blown up and been disproven, but the adage that "Cleanliness and Health in poultry is next to Godliness" remains true.

The paramount importance of Health and Cleanliness, also disinfection, which last means "Getting the dirt you cannot see," is universally admitted and almost universally neglected. We hate to say it, but this neglect is in large measure due to laziness and indifference.

One of the most important duties of the poultryman is to clean up the houses and runs and keep them clean. No duty is more neglected and this mistake is reflected in loss from disease and decreased production of eggs, and in many cases operations at a loss instead of profit.

The chicken was originally as wild as any other bird and had free range over a large area, with opportunity to discover and eat foods and insects that he or she found to their taste and necessary to their health. When the wild bird became domesticated and confined their troubles began. Among barnyard and farm chickens with free range many of the modern diseases are unknown. A large and successful breeder of poultry just told me the other day that with free range, disease is practically unknown in his flock, but when I made a post mortem on a fowl I found worms and symptoms of typhoid. Amid modern conditions, with fowls as with humans in tenements, by reason of crowding many birds together and confining them in small space, diseases develop and are easily transmitted from one bird to another and from one generation to another.

This is true particularly of contaminated grounds and runs which grow more and more foul from year to year and are simply alive with germs of coccidiosis and other diseases and the eggs of worms.

When a bird drinks it washes its mouth out and the filth is returned to the drinking vessel, contaminating the vessel and water, thus disease is transmitted to the other birds until the whole flock is affected. Hence the paramount importance of frequent cleansing and disinfecting the drinking vessels and the use of PHEN-O-SAL prescription in the water.

"External vigilance is the price of safety," and the poultryman who does not clean and disinfect his premises, runways and drinking fountains frequently with Dr. Salsbury's MITE DEATH and

POULTRY HOUSE DISINFECTANT or LOUSE DEATH, invites disaster and failure.

"Don't Overload Nature." While sunlight, fresh air and rotation will accomplish wonders, it is best not to depend upon nature alone to do this work, for the Salsbury's disinfectant is needed, not only all over the premises, but on the roost and in the nooks and corners where germs and insects hide. The germs are present in large numbers to take the life of the defenseless birds.

When Birds Have Worms

In the case of poultry the intestinal tract is often clogged with worms as well as fecal accumulation. The constipation may be caused by lack of cleanliness, exercise, lack of green feed or too heavy green feeding.

The worms should be eliminated and the clogged digestive organs cleansed with Dr. Salsbury's WORM CAPS. This will remove the worms and will bring health to the fowl.

Mucous often forms in the intestines and adheres to the sides, preventing the proper flow of the digestive juices, particularly the gastric juice. Without these juices many important elements of the food pass through unassimilated and are wasted. The well-known Dr. Salsbury's remedies for these various conditions such as WORM CAPS and PHEN-O-SAL have many important and necessary elements to place the fowl in condition by removing the excessive mucous and restoring healthy digestion.

From my experience, I advise the poultryman to keep the birds clean, inside and outside, keep them free from external and internal parasites, and the chances are all in favor of the birds remaining healthy, happy and profitable. It pays to have contented hens as well as contented cows.

A NEW TESTING RACK

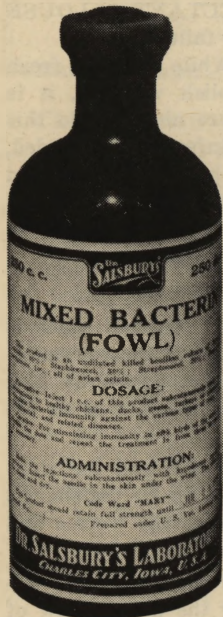
(Continued from page 7)

average 400 to 600 birds a day, culled, wormed and tested.

We sometimes use two of the testing racks and place them in a V shape and the man testing sits in the center of the V with the testing box near the opening of the V. He then tests from both racks, doing one rack while the culler is filling the other. Twenty birds are being worked on at one time and the work is quite speedy. With this method a man with a little experience can test much faster than a man can cull and place the birds in the rack.

VACCINATION PAYS

Late fall and early winter brings on its complications of colds, roup, diphtheria, pox, bacterial bronchitis, etc. Don't forget that a great deal of this trouble can be avoided and affected birds can more easily be cured if they are vaccinated with Dr. Salsbury's MIXED BACTERIN. The Bacterin does not interfere with egg production. The dosage is one full c.c. per bird. Don't pass up the opportunity of preventing these diseases this year.



Vaccinate now with Dr. Salsbury's MIXED BACTERIN produced in our own Laboratories under U. S. Government License No. 195.

PLEASED WITH RESULTS

"Please send me 500 doses of MIXED BACTERIN and one medium bottle of CAM-PHOSAL. Was well pleased with results from last order."—GOODWILL POULTRY FARM, L. P. Nolan, Colony, Kans.

"Please send me by return mail 3,000 doses MIXED BACTERIN, the demand for the MIXED BACTERIN is very good this year, and looks as though there would be far more used, as it is one of the best preventives for roup on the market."—A. E. Dennis, Knoxville, Iowa.

MID-WINTER LOSSES

Cholera and Typhoid causes heavy losses in mid-winter. In some sections it is typhoid, in other sections it is cholera. In many cases both are found together. Be prepared to combat this mid-season outbreak by vaccinating with Dr. Salsbury's CHOLERA-TYPHOID BACTERIN. It is prepared in accordance with the methods discovered by Pasteur. These discoveries startled the world two generations ago and they are just as effective today. The CHOLERA-TYPHOID BACTERIN is both preventive and curative in action.



See order blank for price schedule.

MISSOURI ACCREDITED HATCHERY ASSOCIATION MEETS IN KANSAS CITY

The Missouri Hatchery Association held a well planned meeting at Hotel Baltimore, November 19th and 20th. This was the first attempt at having a general meeting in which exhibitors were invited and an elaborate program was carried out. The old Grill room was filled to overflow with exhibitors and several had to be moved to other rooms and lobbies to provide exhibition space.

A most excellent and well planned program was presented. A protracted rainy spell prevented as large an attendance as this program and exhibition deserved. Some of the chief subjects discussed were as follows:

"Started Chicks and Their Importance to the Hatchery's Success," "Broiler Production"—Gordon W. Johnson, Cleveland, Ohio.

"The Principles of Incubation," "Hatchery Management and the Cost of Producing Chicks"—T. S. Townsley, Cleveland, Ohio.

"The Future of the Poultry and Hatchery Business"—Dr. H. A. Wilson, Jefferson City, Mo.

"The Business Outlook"—Reese V. Hicks, Kansas City, Mo.

"Internal Parasites"—Dr. Sivert Eriksen, Dr. Salsbury's Laboratories, Charles City, Iowa. A general review of poultry diseases was given and illustrated with colored charts.

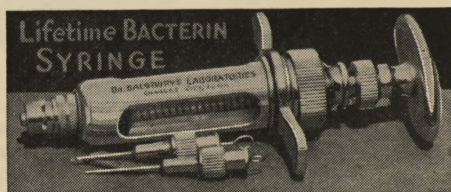
"The Egg Market Situation"—Frank Cromwell, Kansas City.

Victor Drumm of Columbia, Mo., gave his experience with broilers.

A banquet with high class entertainment was enjoyed the evening of the last day.

The election of officers resulted as follows: E. A. Lindstrom, of Clinton, president; Geo. Bagby, of Sedalia, first vice president, and T. C. Gray of Maryville, second vice president.

DR. SALSBUURY'S LIFETIME SYRINGE



The Salsbury Lifetime Bacterin Syringe is nickel plated on steel, with heavy glass and adjustable rubber plunger. It is not to be compared with the cheap, all-glass syringes. With simple care it will last a lifetime. Can be used for vaccinating all farm fowl and animals. Equipped with patented improved needle holders.

Syringe (10 c.c.) and 2 needles.....\$2.75
Extra Needles, each15

PIGEON POX AS COMPARED WITH CHICKEN POX IMMUNITY

There is a good deal of discussion as to the difference between pigeon pox and chicken pox vaccine. When the pigeon pox vaccine was first announced, it was felt that an ideal product had been produced which induced a high degree of immunity without affecting the egg production of the fowls. Further practical observation on the use of the pigeon pox vaccine has changed this view considerably. Many flocks vaccinated with the pigeon pox vaccine have gone down in health and have given considerable trouble, but the chief concern over the results of pigeon pox vaccine is its failure to produce a lasting immunity.

It is generally recognized that chicken pox vaccination produces nearly always a lifetime immunity and inasmuch as the pigeon pox vaccine does not seem to produce a lasting immunity, one should consider well this disadvantage before deciding on what vaccine to use.

This situation has become so acute that the committee on poultry diseases of the American Veterinary Association in their latest report made the following statement:

"Contradictory reports, however, have been received regarding the ability of the vaccine (Pigeon Pox) to protect chickens against natural outbreaks of the disease in the United States. Your committee believes the problem of chicken pox control merits continued research with the pigeon pox vaccine of Doyle, but that a recommendation of its general use as a substitute for chicken pox virus vaccines cannot be made until additional data regarding its ability to produce a solid immunity against fowl pox in the United States are available."

Our chicken pox vaccine has been used very extensively during the past few years and it is exceedingly rare to hear of a case where it has not produced a lasting immunity or where it has produced any marked after-effects. We believe that our vaccine may be used in laying flocks with very little loss in egg production and that the immunity is of a lasting kind.

It is best to vaccinate chickens when they are about half grown but when you find yourself in mid-winter with a pox outbreak, or danger of a pox outbreak, it is better to vaccinate them just as soon as possible to reduce infection to a minimum and keep it from continuing during the season, gradually spreading and increasing in force and adding complications of roup, diphtheria, etc.

When vaccinating, make it worth while by using a product that produces a lasting immunity. Treat the affected birds with CAM-PHO-SAL to kill off the virus and heal the nodules.

SANITATION PROGRAM GETS RESULTS

Mrs. Esther Broers has experienced a great deal of difficulty in controlling intestinal parasites and raising birds profitably. She called on our service man, Mr. C. G. Lund of Shawnee, Kansas, who took the situation in charge. Mr. Lund worked frantically, trying to get these birds straightened up, and after adopting a program of raising the chicks on wire floors, he moved the pullets to range houses. At that time the birds were vaccinated for Chicken Pox and three treatments of MIXED BACTERIN were given for roup. The birds were wormed and put on AVI-TAB treatment as a tonic.

As a result of this drastic program the pullets started laying one week after they had been put on laying mash. Just one week later, the group of 240 pullets were laying 50 eggs a day. This is the fastest pick-up in egg production that any of the flocks in this community have witnessed in the past 20 years.

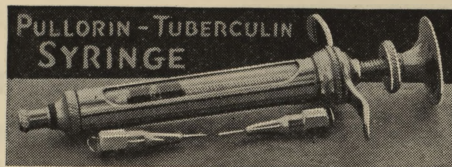
Mrs. Broers is to be highly congratulated on the success she has attained and her willingness to follow instructions until results were obtained.

PROFIT ASSURANCE

"I think a lot of your products as they do the work. I have about 1,500 layers and have most all of them vaccinated, which I claim is real assurance of profits and health."—CONEY ISLAND HATCHERY & POULTRY FARM, California, Ohio.

WE ALSO PREPARE PULLORIN

Those of you who have good results with PULLORIN, don't forget that PULLORIN is prepared in our own Laboratories under government license of uniform potency and high standards.



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.

* * *

"Under supervision of your service men we gave 385 hens the wattle test and found 14 reactors. A later post mortem on some of these birds showed every indication of being infected so we believe the test has been very satisfactory."—Clearview Poultry Farm, New Castle, Pa.

CUTS FOR YOUR CATALOG

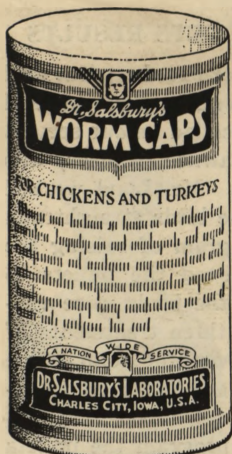
A few years ago hatcherymen devoted all the space in their catalog talking about the different matings and the chicks they offered for sale. Now most hatcherymen have found that their sidelines afford a nice source of income and they are including in their catalog a full list of equipment and remedies that they offer to the poultrymen. Every hatcheryman can well afford to devote 10% of his space in the catalog to Dr. Salsbury's line of proven remedies. It is a line of remedies that is designed for individual diseases and when properly used always gets results. To help hatcherymen display this line, we have available a number of cuts that will be loaned, free of charge, for use in catalogs or other pieces of advertising.

Order them by number. We would also help you with directions, write-ups and materials for the Disease Department in your catalog, and the proper display of our goods.

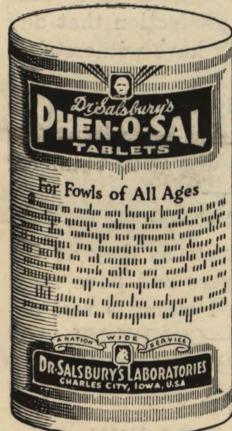
Cuts displayed on this page will print well on any kind of paper—or even in the newspaper.

ADDRESS—

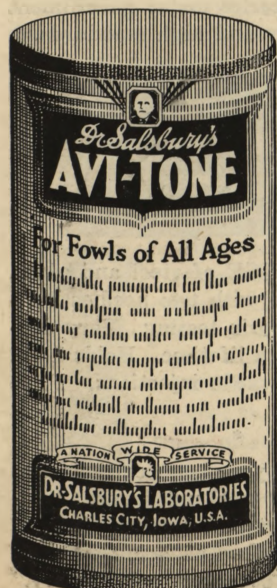
Dr. Salsbury's Laboratories
Charles City, Iowa
U. S. A.



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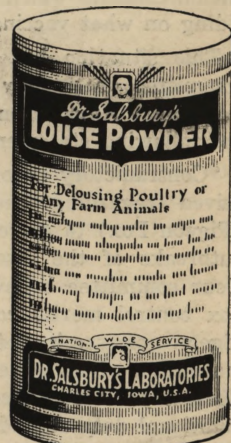
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