

# ORCHARD TOPICS

## COMPOUNDS TO KILL INSECTS

Experimental Work Recently Undertaken by Specialists of the Bureau of Chemistry.

(Prepared by the United States Department of Agriculture.)

The development of methods for the manufacture of cheaper and better chemical compounds to kill insects and fungi which destroy large quantities of fruits and vegetables each year is the object of experimental work recently undertaken by specialists in the insecticide and fungicide laboratory of the bureau of chemistry, United States department of agriculture.

The high cost of copper, which is an essential ingredient of the fungicide known as bordeaux mixture, has led to experiments to determine whether a bordeaux mixture cannot be prepared which will be more effective for each unit of copper present than as usually prepared, thus resulting in a saving of this expensive constituent of the bordeaux mixture.

Studies also will be made of the manufacture of paris green, lead arsenate, and other compounds of arsenic. No systematic study of all the compounds of arsenic that might be useful in spraying has been made, and it is thought probable that such a systematic study will lead either to the development of cheaper sprays, because the constituent elements are cheaper, or to sprays that are more effective than the sprays now used.

Nicotine as an insecticide will be studied with a view of developing possible substitutes for it, since there are a number of compounds which resemble nicotine in chemical and toxic properties. It is hoped to develop something that will be cheaper and even more effective than nicotine. A study will also be made of the best and cheapest methods of extracting nicotine from tobacco products on the farm. Compounds of lime, sulphur, and other compounds which may be used as insecticides and fungicides will be investigated.

Commercial methods of preparing insecticides and fungicides will be studied under practical conditions of preparation with a view of developing cheaper and more effective methods for manufacturing them.

The efficiency of the insecticides developed and the question of whether or not they are injurious to growing fruits and vegetables will be determined by field experiments conducted by the bureaus of entomology, plant industry and chemistry.

A method for preparing a commercial grade of calcium arsenate has been worked out and a patent obtained for the process. The patent has been dedicated to the public, and any manufacturer may use it. The results of the investigation and a description of the process for preparing calcium arsenate have been published in department Bulletin 750, which may be obtained upon application to the United States department of agriculture, Washington, D. C.

## WINTER CARE FOR CURRANTS

To Eradicate Insects and Fungus Germs Dormant Spray of Lime and Sulphur is Good.

Currants need good soil, and should not be planted too close. The rows should be at least seven feet apart, and the bushes five feet apart in the row. At this distance, when full grown, they will come together in the rows and leave none too much space between the rows for cultivation and picking. Of course, this is for market purposes.

For home purposes four or five bushes, if properly taken care of, will give an ample supply. The soil should be rich and kept rich and moist by ample mulching with strong manure. This should be attended to every spring. Currant bushes need some trimming. Every spring they should



Lee Black Currants.

be gone over, and all the new shoots taken out, with the exception of three or four. All wood and all branches lying on the ground should also be cut away, together with broken stalks. They should have a dormant spray of lime and sulphur, of the same strength as used for apples, one gallon of concentrated solution to nine gallons of water. This is to eradicate scale and destroy fungus germs.

## QUITE EQUAL TO OCCASION

Female "Heckler" Who Tackled Lady Astor Got a Good Deal of a Surprise.

"Lady Astor," said a New York clubman, "brought more popularity to the Astor name during her election fight in England than either the old viscount, William Waldorf, or the new viscount, Major Waldorf, ever succeeded in doing.

"She's a clever woman, a witty woman, and we Americans may be proud of her though she has deserted us.

"On the election platform she gave many a striking proof of her ready wit. Thus one evening a sour-visaged female rose in the audience and asked with a kind of prim irony:

"If Viscountess Astor is elected to parliament, will she work to make divorce as easy for us in England as it is in America?"

"This was a mean blow, a foul blow, a blow below the belt, so to speak, for Lady Astor, through no fault of her own, is a divorced woman. She countered brilliantly, however, and the blow didn't land. Looking at her questioner in a commiserating way, she said:

"I'm sorry, madam, you are in trouble."

"And the house roared with laughter."

## HAVE PUT UP BRAVE FIGHT

Sumatra Natives for Centuries Carried on Warfare With Their Conquerors, the Dutch.

Sumatra's war-declimated population amounts to less than 3,200,000 most of which is not available for labor, the island, therefore, barely beginning to attract attention, despite its riches in natural resources. Sumatra is immense in area and between its different sections there is little inland communication, that which exists being of a treacherous and warlike character. Much of the island remains unexplored. Other parts such as the whole of Achin, are still in a state of warfare, which seems destined to end only with the eventual extermination of the resisting tribes.

The first hostilities of the Achinese date back to 1590, but for the last forty years fighting has been continuous, costing more than 200,000 lives in the Achinese war alone. A guerrilla warfare of surprises and ambushes has been going on in the jungles, the determined resistance of the Achinese continuing undiscouraged, although their government has been deposed, and all their towns and strategic positions occupied by Dutch troops.

### Inside Information.

"Every little day," said the Slangster, "a wise guy gets hep to some new idea."

"Just—ah—what do you wish to convey?" the Social Scamp inquired.

"Ever notice how some of these baby vamps mask their ears with seal-ops of hair?"

"I can't say as I have, old dear."

"Well, the hair comes down over the listeners like part of a waterfall, and is tucked up underneath or in the back."

"My word!"

"I've just found out how they do it."

"How do they do it, tell me."

"They make the bay windows stand out by stuffing little gobs of false hair inside."

"How did you learn that?"

"I know a lady who helps to sweep out a department store mornings."

"My word!"

"And she says the gobs fall out and clog up the vacuum cleaners."—Youngstown Telegram.

### Baby's New Papa.

While on a train a woman sat opposite me accompanied by a chubby youngster that was just learning to toddle around. At one of the stations the woman requested me to watch the child while she sent a telegram. The conductor assured her there would be plenty of time.

Imagine my consternation when the train pulled out and the woman did not return! With the now screaming child in my arms and beads of perspiration trickling down my desperate countenance, I searched the entire train in a vain endeavor to find "mamma."

At the station just ninety miles further the overjoyed conductor came running into my coach with a telegram from mamma addressed to baby's new "papa." And at the next stop, baby's uncles, aunts, and cousins were there to receive it.—Chicago Tribune.

### Spreading Joy.

The joy you give others will return to you with interest. To be sure you do not help others for returns. That would be mercenary and where it is practiced men soon learn to read the motives that prompt it. The result is a lonesome man in a short time. You will give joy for the joy it gives you to give it. You feel rewarded a hundredfold in knowing you have helped somebody. Their grateful hearts respond with overflowing gladness and gratitude. It's no wonder you're glad. Yet it's merely the action of the old law that rewards the altruistic spirit with blessings.

### What Did He Mean?

She—Promise me that when we marry we shall live somewhere near mother, so that she can slip over.

He—Well, we might take that house on the edge of the cliff, and then I should love her to slip over.—London Opinion.

# WITH THE FUNNY MEN



### Pocketed the Insult.

"Mr. Grumpus thought he would cure a borrowing neighbor of a bad habit."

"Proceed."

"When the neighbor sent over one morning to borrow a hammer, Mr. Grumpus sent him a check to buy one."

"How did the scheme work?"

"The neighbor expressed his thanks, and the next day wanted to borrow a lawn mower."

### Got Off Easy.

His car had collided with a telegraph pole. A crowd gathered round.

"I think my collarbone is broken," he said to the policeman who bent over him.

"If that's all, yer in luck," growled the officer. "Shure, 'twas break-neck speed ye was goin' at."

### His Position.

"What is your position on this great question?"

"My position," replied Senator Sorghum, "is somewhat like that of a tight-rope walker. I don't want to stop to argue or show off. What I want to do is to get across to solid ground."

### Making Careful Inquiry.

"Those ladies are smoking."

"Quite the thing at an affair of this kind."

"Answer me one question, friend."

"Well?"

"What's the etiquette about asking a lady for a light?"

### Precedent.

"Of course," observed the man with a ponderous intellect, "we must show the deepest respect for precedent."

"Of course," assented the man with a fountain pen. "But that's no excuse for going ahead writing '1919.'"

### A Champion.

"What's Cholly doing since he graduated?"

"He's a bank runner."

"He ought to make good at that. He took many interscholastic prizes for running."

### Reasonable Fear.

"Do you think Bliggins is afraid of work?"

"Shouldn't be surprised. Anybody who has slighted work as much as he has shouldn't expect any favors from it."



### A POOR COUNTER.

"He's an expert accountant."

"I don't believe it. I played golf with him the other day and the score he handed in convinced me that he had never studied arithmetic."

### Like Folk.

Flowers are like folk—the daisy shows Humility, in byways growing. The violet's modest, but the rose, The rose is given to blowing.

### And All the Rest, Too.

Bob—There goes the original numismatist in this town.

Jake—Must have some swell collection of coins.

Bob—He has. He's the head waiter in a restaurant downtown.

### The Traffic Cop.

"I notice you don't interfere with the woman drivers, officer?"

"No, I try to make it a little easy for the ladies."

"Yet justice is blind."

"Still, she's a woman."

### Affinity.

"I have a dog and a hen that are fast friends."

"What can a dog and a hen have in common?"

"These two are both setters."

### That Settles It.

Willie (excitedly)—Hey, pop, no more plaster can fall off the ceiling.

Pop—Is that so; what's the trouble?

Willie—It's all off.

### Justified.

"Why are you telling everybody at the table my coffee is poor?"

"If you will look in my cup, madam, you will see I have grounds for my assertion."

### Up-to-Date Riches.

"Jones has secured his pile, all right."

"Plenty of the long green, has he?"

"Long green, nothing! I was referring to his coal pile."

### The Likely One.

"What is your birthstone?"

"Judging from the knocks I am always getting I should say it was a brickbat."

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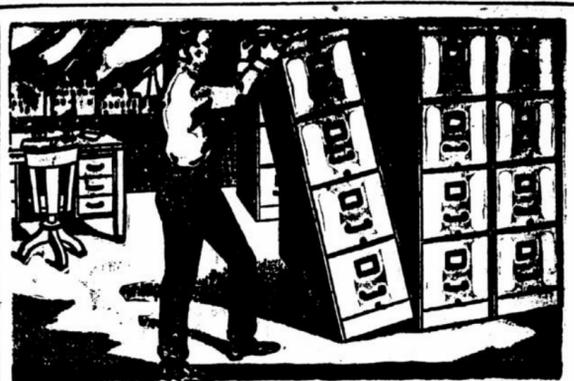
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