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MIDSUMMER CATALOGUE: 1905





Potted Strawberry Plants Garden Tools Spray Pumps

SPRAYING MIXTURES, Liquid and Dry

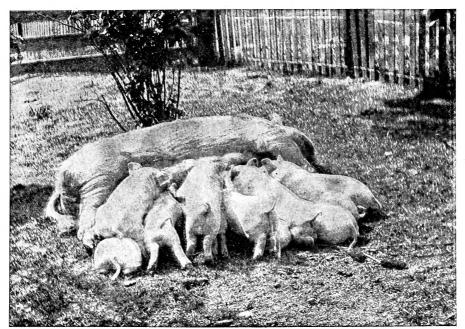


Pleasant Yalley Nurseries

ARTHUR J. COLLINS

MOORESTOWN, N. J.





"Meal Time"

JERSEY RED PIGS



HE "Jersey Red" breed of swine is growing in favor wherever it has been introduced. They are large, long-bodied red hogs, which are good feeders, easily fattened and grow very rapidly when well fed. They are small-boned, vigorous and prolific.

These pigs vary somewhat in color from light sandy to dark red. Pigs grow very fast when young, and fatten at any age, producing the finest quality of meat.

One farmer raised and slaughtered, in sixteen years, 463 hogs, about twenty-one months old, that averaged 538 pounds dressed. One crop of eighteen, about the same age, averaged 728 pounds, and dozens of crops of pigs nine months old dressed 300 to 375 pounds average.

Cattle-breeders assert that the bull is half of the herd. It is equally true that the boar has a vastly important and responsible office to fill as the head of the herd of hogs. Progress in swine-breeding cannot be made without the intelligent use of good blood infused into the herd every year or two through the medium of a well-bred boar of outstanding individuality. This is true, whether raising swine for breeding purposes or for market.

Sometimes it is deemed advisable to cross breeds. When a litter of pigs is to be raised exclusively for slaughter, crossing is not objectionable, and many careful hog-raisers think it is better, as the result is often pigs which are fine animals, having good forms, maturing quickly and satisfactorily; but the pigs, however good they may be, are of little value as breeders. In general, good pure-blood animals will be found more profitable than either crosses or grades, and I am convinced that the "Jersey Red Swine" are still in the lead, and will continue to be on account of their many good qualities.

I take pleasure in offering to the public my celebrated pure "Jersey Red Swine," and do so with



the full assurance that they are **superior** to any other breed when **bred pure**, and will improve any breed with which they are crossed. They thrive on little care and respond nobly to careful treatment. They have large litters, and the mothers are kind and gentle to the pigs. It is not infrequent for a young sow with her first litter to have eight pigs, and with her second and third to have twelve to fourteen pigs (enough for one time) and raise all of them.

It is with great pleasure that I offer at this time the best of my young sows. The older and tried sows are still in the herd, and are not for sale, and a large number of fine young litters enables me to offer a grade of sows which are most desirable and which can be bred at any time to suit my customers.

They would be mated to a first-class boar.

Will you try a young sow bred, or a pair of pigs eight to ten weeks old, or a young boar fit for service?

I recommend keeping hogs in clean pens. Hogs are by no means as unclean in their habits as people generally suppose them to be, and they should be provided with whitewashed houses in which the sunlight is allowed to enter freely, given plenty of pure fresh water in troughs, and kept away from mud wallows and stagnant streams, which not infrequently inoculate them with germs of destructive diseases. Good disinfectants

should be freely used. It is surprising how much sulphur, wood-ashes and salt will be consumed by hogs, aiding very materially in keeping them in good condition.

PRICES

Single pigs, nine weeks old, \$6; pair, not akin, \$11. One boar and two sows, nine weeks old, not akin, \$17. Single pig, three months old, \$10; pair, not akin, \$18. Single pig, four months old, \$12; pair, not akin, \$22.

Single pig, five months old, \$14; pair, not akin, \$24. Single pig, six months old, \$18; pair, not akin, \$32. Boars fit for service, seven months old, \$20 to \$25. Sows, bred, \$2) to \$25.

Special prices to agents

Guarantee.—I guarantee all stock shipped to arrive safely and in good condition. Will box pigs as comfortably, but at the same time as lightly as possible, and will deliver, with food for the journey, f.o.b. at Moorestown, at prices named. Get a pair of pigs and you can make big money out of the investment by selling the pigs for breeders.

Terms Cash.—Send money by Draft, Check, Post Office Money Order or RegisteredsLetter.

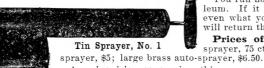
ZENOLEUM

Prepared by the Zenner Disinfectant Co., Detroit, Mich.

As a germicide, cleanser and disinfectant, I am pleased to recommend Zenoleum, which we have used freely on our pigs and hogs for a number of years, and which is used and endorsed by forty state agricultural colleges, by leading veterinarians and swine-breeders. It is claimed for Zenoleum that by its constant use cholera will be prevented. Cholera is caused by a germ of bacterium. These germs are so small as to be entirely invisible to the naked eye, consequently millions of them may lurk in small quantities of filth or in small wounds, etc. If these germs are kept out of the animal's body there can be no hog cholera. The aim should be to destroy the germs before they are taken up by the hog. Filth of any kind is a breeding ground for germs. It should be kept from the troughs, from the ground and from the sleeping quarters, and the pens and runs kept constantly and thoroughly disinfected.

Troughs, floors and walls should be occasionally scrubbed with a two per cent solution of Zenoleum (one part Zenoleum to 50 parts water). Mere water is not enough; it takes Zenoleum to kill germs—use it freely. Dip or scrub the hogs in a three per cent solution consisting of one part Zenoleum to 30 parts water. For lice, mange, eczema, nettle-rash, etc., spraying the hogs with the three per cent solution is quite effective. It puts the skin in good condition and leaves the pig thrifty.

Prices: 8-oz. can, 25 cts.; 1-qt. can, 50 cts.; ½-gal. can, 90 cts.; 1-gal. can, \$1.50; 2-gal. can, \$3; 3-gal. can, \$4.50; 5-gal. can, \$6.25.



You run no risk—we guarantee Zenoleum. If it is not what we say it is, even what you think it should be, we will return the money.

Prices of Sprayers: No. 1 Tin sprayer, 75 cts.; large galvanized auto-

Any inquiries concerning this, or concerning any diseases or troubles of pigs cheerfully answered.



DR. HAAS' HOG REMEDY

Necessary for Profitable Swine Raising

That swine-raising, when properly conducted, can be made the most profitable branch of stock-raising on the farm is an admitted fact. There is no other farm animal that requires so little attention and that can be fitted for market and converted into money as quickly and profitably as the hog. And as one of my customers has aptly said, "the hog is the farmer's gold mine if he is given proper attention."

Hog-raising, like everything else, requires common sense to make it successful, and the farmer that gives his hog a "square deal" will make money out of him.

The first requisite for success is the liking for the business and a willingness to give proper attention on the part of the owner. Then the location and surroundings must be suitable, the main requirements being ground that is well drained and free from stagnant ponds and mud-holes. An abundance of available pure fresh drinking water and comfortable and clean shelter are very important requisites. Water from streams should not be utilized for drinking purposes, as it is often the means of spreading contagious diseases, germs having been carried from points near its source. It is equally important that the hogs do not have access to old and dusty strawstacks, manure piles, etc., all of which may harbor germs of disease or vermin. Such places as may cause no end of trouble, not only among hogs, but other live-stock, will not be tolerated by any well-managed farm.

As to houses, there is no one kind that is best, but it is not advisable to shelter too many animals together, for crowding must be avoided, as it will result in some becoming overheated, thus subjecting them to colds which will lead to more serious trouble. Bedding must be changed frequently, and houses, feeding and sleeping places kept clean, and occasionally disinfected.

The primitive hog had free range of forest and field and was a forager, but modern hog-raising methods demand that he be forced almost from birth to maturity. The hog that would otherwise be vigorous and strong is often weakened in constitution and made easily susceptible to disease by this crowding process, over-feeding, or a continuous diet of one kind of food. A great mistake is made by many of our farmers, especially those in the corn belt, by feeding too much corn, which is a fattener more than a bone- and muscle-builder. Ground oats, mill feed, etc., made into a stiff mash, will give better results as a food than corn, except for finishing off for the market. Kitchen and hotel slop are also economical swine foods, but they should be fed while sweet. Never feed slops that are fermenting or sour, or that contain concentrated lye or washing powders.

There is no one thing that can be fed to hogs with as beneficial results as **Dr. Haas' Hog Remedy**, which for nearly thirty years has shown its sterling worth in the wonderful results it has produced. Its properties for keeping in normal condition all of the digestive organs make it almost indispensable to the hogs being fattened, and no one can start a big crop right without feeding to brood sows before farrowing and until pigs are weaned. It is unequaled as an arrester and preventive of disease, to stop cough, to expel worms, to hasten maturity, and it will pay for itself many times over in extra flesh without extra food.

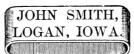
Dr. Haas' 96-page book, "Hogology," will be sent free to any one asking for it. The advice and information given therein are facts, established by Dr. Jos. Haas, V. S., Indianapolis, Ind., in his experience of nearly thirty years as a veterinary and swine specialist.

Packages of Dr. Haas' Hog Remedy, 50 cts., \$1.25 and \$2.50 each; 12½-lb. can \$6.50, 25-lb. can \$12.50.

STOCK LABELS









I am prepared to furnish cattle, pig and hog labels. Your name can be printed on one side with a number on the other, thereby being able to claim your stock if lost or stolen; also the number will be valuable in keeping dates when stock is born, bred, sold, etc.

Every cow, bull, pig, hog or sheep should be tagged as a matter for record. Mark them in the left ear.

PRICES:			
Cattle labels	Per doz\$0 75	\$4 00	1,000 \$35 00
Calf labels	60	3 00	28 00
Sheep, hog and pig labels	40	2 00	18 00
Spring punch for cattle labels			Each\$1 50
Spring punch for calf labels			





Spring punch for sheep, hog	Each
and pig labels	.\$1 25
Bull nose punch	. 1 40
Bull nose ring, 3 inches	. 40
Bull nose ring, 2½ inches	. 25
Poultry leg bands, stamped with initials or numbers. \$1 to	for 50,
\$1.75 per 100, postpaid.	

Spray Pumps, Etc.

Spraying is recognized by all to be an absolute necessity to preserve the health and even the life of a tree. Of course, a large orchardist can spray with engines and automatic arrangements to good advantage, but there are excellent sprayers for use in small orchards and in gardens and lawns, and I am prepared to offer a full line of spray pumps, and spray carts with hose connections and couplings, bamboo poles, nozzles, etc., all of which I fully endorse, having used them with very good success. Without a doubt, they are the best on the market. Strong, durable and easily worked.

THE "POMONA" SPRAYER

We offer this as the best orchard barrel sprayer. It is unusually powerful and



There is nothing about the sprayer to get out of order, and with ordinary care it will last a lifetime. All working parts are of bronze — plunger, gland, valve, valve seat, etc., which is particularly desirable, as the spray mixtures will not affect brass or bronze. There are no leather packings to become hard and useless. We supply barrel and mount

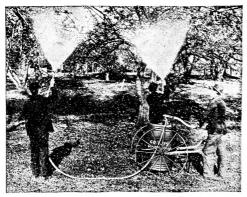
pump in same, \$1.75 extra.

of large capacity, fully capable of supplying four leads

of hose and eight nozzles.

Fig. 1100

Pump with	PLUNGER		Double	Price	
Agitator	Diam.	Stroke	Discharge	Frice	
and Hose Coupling	$2\frac{1}{2}$ in.	Adjustable 3, 4 or 5 in.	½ in. hose ¾ in. pipe	\$15.00	
Outfit C	Fig. 1 lead with Noza	18.75			
Outfit D	lead: hose	s 15 ft. each,	agitator and two ½ in. discharge ry" or "Seneca"	22.00	



Pomona Sprayer mounted on Barrel Cart

Pomona Sprayer mounted on barrel cart, as above, makes a most handy and complete sprayer for lawn, garden or small orchard and can be operated by one man.

Price, \$12.50 additional to above prices

"SAVELOT" SPRAYER

Very Powerful and Large Capacity—All Working
Parts Bronze

"Savelot" is the same as "Pomona" in all respects, except that it has a seamless brass tube cylinder, instead of iron, and a brass piston with cupped packings, instead of an outside packed plunger. The cupped packings are of a special material which is not affected or hardened by the chemicals used in spraying. There is no leather used in the sprayer. The Agitator is the same as supplied with the "Pomona."

Pomona and Savelot Sprayers are regularly made for the end of a barrel, but can be supplied for the side of a barrel, if so ordered, without extra charge.

If the Agitator is not wanted, deduct \$1 from list price.



Fig. 1336

Pump with	PLUNGER		Double	Price	
Agitator	Diam. Stroke		Discharge		
and Hose Coupling	2½ in.	Adjustable 3, 4 or 5 in.	½ in. hose	\$13.50	
Outfit C	Fig. 1336. With agitator and one lead 15 ft. ½ in. discharge hose with "Mistry" or "Seneca" Spray Nozzle.			17.30	
Outfit D	Fig. 1336. With agitator and two leads 15 ft. each, ½ in. discharge hose with "Mistry" or "Seneca" Spray Nozzle.			20.60	

"SENTINEL JR." DOUBLE-ACTING SPRAYER

HORIZONTAL CYLINDER

For Large Orchards, Parks, Grobes, Etc.-Very Powerful

The "Sentinel Jr." Sprayer, made in two sizes, is double-acting, which produces a steady stream at the nozzle and is first class in every particular, built for continuous hard work and high pressure and especially designed for large orchards and tall trees. It will be

found to meet every requirement. The brass cylinder lining is easily removable; it is made of a heavy drawn brass tube with cast bronze cylinder head. This is an important feature, as the gritty nature of many of the spray mixtures wears all parts of the sprayer, and this lining can be replaced at small cost whenever necessary. The valves are all brass and all grouped in the valve chest and easily reached for adjustment or repair by removing the four bolts that secure the air-chamber. The brass piston-rod is outside guided, making a perfectly straight thrust

Fig. 1316

through the stuffing box, which is packed from the outside.

The removable malleable iron lever is long and powerful and with the large airchamber (6-inch by 30-inch) a pressure of 125 pounds can be easily maintained. Suction can be taken from either side of the pump, and there are two discharge openings fitted for 1/2-inch hose. When ordered without hose or nozzle, both discharges have half couplings for 1/2-inch hose and a brass strainer.

This Sprayer is of sufficient capacity to supply, if necessary, four leads of hose or two leads, each with two, three or four nozzles, and will be found

fully as serviceable as a Power Sprayer for orchards not large enough to warrant the purchase of a power outfit.

Pump with	No.	Diam. Cyl.	Suction	Double Discharge	Price
Strainer and Hose		2½ in.	1 in. hose	½ in. hose	\$25.00
Coupling	4	3 in.	1¼ in. hose	½ in. hose	29.00
Outfit G	1 8 3	Fig. 1316. 2½ in. cyl. with 5 ft. 1 in. rubber suction hose and strainer and one 25 ft. length of ½ in. discharge hose with one "Mistry" (or other) spray nozzle.			
Outfit GG		Fig. 1316. 3 in. cyl.; same as outfit G.			
Outfit H	Fig. 1316. 2½ in. cyl.; same as outfit G, with two 25-foot lengths of ½ in. discharge hose and two "Mistry" (or other) nozzles.				38.25
Outfit HH	Fig. 1316. 3 in. cyl.; same as outfit H.				43.00
Outfit J	0	Fig. 1316. 2½ in. cyl.; same as outfit G, with four 25-ft. lengths of ½ in. discharge hose and four "Mistry" (or other) nozzles.			
Outfit JJ	Fig	g. 1310 utfit J.	6. 3 in. cyl	.; same as	55.00

"MONARCH" SPRAYER

VERTICAL CYLINDERS

For Large Orchards, Grobes, Etc.—Very Powerful— Easy of Operation

The "Monarch" Sprayer is made in two sizes, having two vertical cylinders and two bronze plungers ope-

rated by a single lever so arranged as to give a powerful stroke and a heavy pressure. The cylinders are packed with a material unaffected by spraying solutions. This construction permits all gritty particles to pass through the valves and out without cutting the cylinders. The ports are large and direct. All working parts are bronze, plungers, glands, valves, valve seats and covers. The plungers are packed from the outside and the valves can be easily reached by removing the valve covers. The malleable iron lever is removable and can be operated in a vertical position or up and down. The long lever and large air-chamber makes it easy for one man to maintain a high pressure. The capacity of the

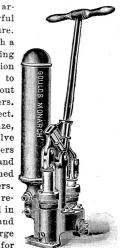


Fig. 1318

sprayer is so large that the pressure will hold for some time after the pumping has stopped, which gives time enough to work the agitator.

This is the best large sprayer, particularly well adapted to whitewashing, as the valves are so accessible,—a very important feature in a sprayer for this service. A pressure gauge should always be placed on top of air-chamber.

"Sentinel Jr." or "Monarch" Sprayer can be mounted on a tank or mounted on a plank and loaded in wagon with one or more barrels of spray mixture.

The famous "Mistry" nozzle is furnished with above outfits unless others are specified.

Pump with	No.	Diam. Cyl.	Suction	Double Discharge	Price
Strainer and Hose Coupling	0	2 in.	3/4 in. hose	½ in. hose	\$22.50
Couping	2	$2\frac{1}{2}$ in.	1 in. hose	½ in hose	29.25
Outfit C	Fig. 1318. 2 in. fitted with 5 ft. 3/4 in. suction hose with strainer and 1 lead ½ in. discharge hose 15 ft. long, with one "Mistry" (or other) Spray Nozzle.				29.25
Outfit CC	Fig. 1318. 2½ in.; fitted up in same manner, except has 1 in. suction hose.				36.50
Outfit D	Fig. 1318. 2 in.; fitted in same manner, with 2 leads ½ in. discharge hose each 15 ft. long.			33.75	
Outfit DD	n		3. 2½ in.; fi except has 1		41.00

COMBINATION KNAPSACK SPRAYER

Sprayer for Greenhouses and Vineyards and on Side Hills, also for Whitewashing Fences, Stables, Henhouses, Greenhouses and Greenhouse Glass

There are many places where it is inconvenient or quite impossible to use a barrel sprayer, and a Bucket



or Knapsack Sprayer becomes indispensable. In the greenhouse especially the Knapsack is the most convenient form: the sprayer being on the back of the operator, it permits him to pass along the aisles freely, using one hand to operate the pump and the other for the spraying.

There has been some objection to Knapsack Sprayers, many claiming they were hard to operate, very tiresome on the back and that it was difficult to get up sufficient pressure for proper work. In designing this Knapsack Sprayer we had these points in view. The tank holds five gallons and is of good quality galvanized iron. The pump is of brass. The lever is long and powerful, and can be readily changed for right or left hand. Fig. 1323. With 4 ft. of 3/8 in. discharge hose, "Seneca" or "Mistry" Nozzle and pipe extension. Price, \$10.

BRASS SPRAYER AND BUCKET

Fig. 1068 is a very compact, useful outfit for a variety of purposes-spraying, sprinkling,



Fig. 1068

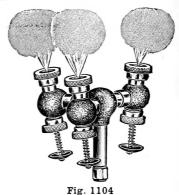
washing windows, whitewashing, etc.

All brass, gutta percha ball valves and doubleacting effect. The bucket is of best quality of galvanized iron, with a solid wood bottom extended at one side for a foothold. A removable wire gauze strainer is fitted in the filling collar and covered with a tight-fitting cap. The capacity is about six gallons. The "Calla" nozzle furnished has three changeable discharge openings, making a spray or solid stream at will.

This outfit is especially

well adapted to whitewashing stables or henhouses for sanitary purposes. The whitewash cannot "slop over," the ball valves cannot clog or the nozzle stop up. The pump is powerful enough to force the whitewash into the pores of rough wood where the insects secrete themselves and will do the work quicker and better than it can be done with a brush.

The henhouses should be frequently whitewashed to keep them sweet and free from vermin, and with an outfit of this kind handy the work can be done with ease in a very short time. Fig. 1068. With 5 ft. of 3/8 in. discharge hose and "Calla" Spray Nozzle. Price, \$9.



THREE DISCHARGE VERMOREL NOZZLES Fig. 1104. Cut for 1/4 in. pipe, \$2.75; including hose connection, \$3.

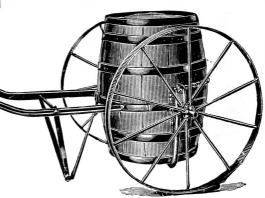


Fig. 1133

BARREL CART

A Handy Piece of Garden Furniture - Strong, Light, Durable

This is a well-made iron cart with strong iron wheels having tires 21/2 inches wide, so they will run easily on soft ground. The construction is such that any barrel can be picked up and held in place with the chain which passes around the barrel.

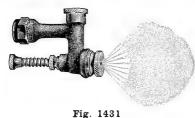
It is specially designed for mounting our "Barrel Sprayers." Fig. 1133. Cart complete without barrel, \$10; complete with barrel (no pump), \$12.50. Cart complete with barrel and pump at additional price of particular pump or out-

fit selected.

SHERMAN HOSE CLAMPS

Fig. 1272. Price per doz., 1/2 in. \$1.60, 34 in. \$1.75, 1 in. \$2, 11/4 in. \$2.50.





"MISTRY" SPRAY NOZZLE

PATENTED

The Most Wonderful Spray - Fine as Delv-A Perfect Mist or Fog

Your Sprayer may be perfection, your formula the best, and you may spray at the right time, but if your nozzle is wrong your efforts are wasted.

The "Mistry" is superior to all other nozzles in these six vital points: (1) It produces a perfect mist; insures effectiveness. (2) It requires only twenty-five pounds pressure; saves work. (3) It covers a very wide area; saves time. (4) It can be set to spray at any angle; saves trouble. (5) It does the work of two nozzles; saves a nozzle. (6) It uses one-half less liquid: saves solution. It fact, it is a money-saver from every point of view. Fig. 1431. For 1/4 in. pipe, \$1; for hose, \$1.25.

Fig. 1437

BAMBOO EXTENSION

Bamboo Extension, 1/4 in. brass pipe inside of bamboo rod. Brass stop-cock cut ¼ in. female pipe thread, thus adapting it for attaching to hose. Other end cut 1/4 in. male pipe thread to fit nozzles. Ten feet long, with cock. Fig. 1437, \$4.50.

BRASS STOP-COCK

Brass stop-cock closes by spring pressure and needs only the touch of hand or finger to open or close it. Can be operated by one hand while pumping with the other. Fig. 1338, \$1.75.





Fig. 1338

"Scollay Rubber Sprinkler

"SCOLLAY" RUBBER SPRINKLER

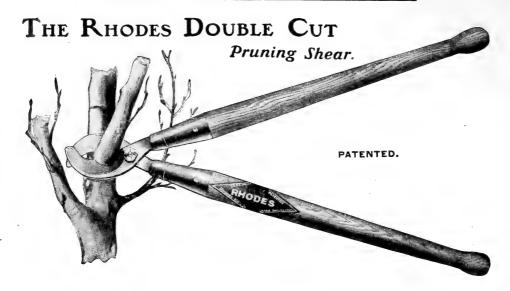
This sprinkler is designed for applying water or liquid insecticides on the under side of leaves and foliage. Price by mail, postpaid, \$1.10. If to go by express or freight, deduct 10 cents from price.

THE "DEWEY" SPRAYER

We recommend the "Dewey Sprayer" as an exceedingly useful hand-sprayer in field, garden, orchard, greenhouse, stable and hennery. It will make a mechanical emulsion of kerosene oil or crude petroleum and water, by simply filling the small reservoir with oil, the large one with water, the sprayer forming the emulsion without any trouble to the operator. Well made of brass and tin; weighs about 11/2 lbs. Price, \$2.



The " Dewey" Sprayer



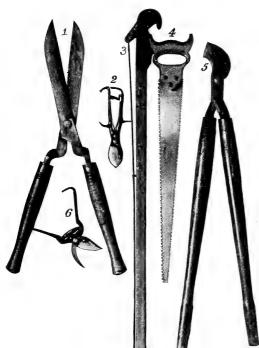
The Rhodes Double Cut Pruning Shear is the only Pruning Shear manufactured that cuts from both sides of the limb. It does not bruise the bark or injure the limb of the tree, but leaves a clean, smooth cut, which heals up rapidly. With wood handles, \$2.50.

The Rhodes Double Cut Hand Pruner. Length, 9 inches. \$2.

SIX HANDY PRUNING TOOLS

The six handy pruning tools shown below are necessary on every well regulated place, even though you have only a few trees in the garden or on the lawn.

No. 1. Raspberry and blackberry shears; also handy to prune hedges.



Six Handy Pruning Tools

Strong and durable. 75 ets.

No. 2. A pair of shears for pruning roses, grape - vines, small limbs, etc.; can be used by a woman in thinning out or cutting dead branches. The Rhodes Double Cut Hand Valuable and handy. 40 cts.



Pruner

- No. 3. A pruning knife for cutting high branches and twigs; no ladder is required where you do not have to reach higher than fourteen feet; a very useful article. 65 cts.
- No. 4 is a handy saw, both sides cut; coarse teeth on one side for large and dead limbs, the other side has fine teeth for smaller limbs. The handiest saw on the market; light and durable. 90 cts.
- No. 5 is used for heavy limbs and is very powerful. It will cut a 2-inch limb. \$1.50.
- No. 6. Another form of shears; the kind used in large orchards, or in the garden or lawn; pleasant to work. Every one should have a pair. 50 cts.

Liquid Insecticides and Fungicides

HYDRATED LIME (LIMOID)

FOR SPRAYING

Hydrated Lime (Limoid) for Mixing with Kerosene and Water for Spraying to Kill the San Jose Scale

What is Hydrated Lime? A very clear and fine form of lime. It is made from limestone which contains some magnesia—is ground and sifted finer than flour, made especially for spraying purposes.

Hydrated Lime (Limoid) is lime that is combined with a small amount of water without changing its chemical form.

It is useless to try to make a spraying mixture that will kill San Jose Scale without getting the true Hydrated Lime (Limoid), as it will not mix properly with kerosene and water, so as to spray through a nozzle throwing a fine spray.

. If the mixture is not made properly, i. e., by using the true Hydrated Lime (Limoid), much time will be wasted in labor in not being able to get the spray mixture through the nozzles without clogging.

A 20 per cent mixture of Hydrated Lime and kerosene (Limoid mixture) is sure death to the San José Scale, and can be easily made as follows: 20 gals. kerosene with 80 lbs. Hydrated Lime (Limoid) diluted with enough water to make 100 gals. of the mixture, is safe and effective for a winter spraying, when trees are dormant or not in leaf, for apple and pear trees.

For peaches, plums and roses a 15 per cent mixture is considered effective. 15 gals. kerosene with 60 lbs. Hydrated Lime (Limoid), diluted with enough water to make 100 gals. of the mixture, is safe and effective for a **winter spraying** when the trees are dormant or not in leaf.

For a **summer spray**, use not over a 10 per cent mixture with the **Bordeaux Mixture** as follows: 10 gals. kerosene with 40 lbs. Hydrated Lime (Limoid) diluted with enough water to make 100 gals. of the mixture.

Bordeaux Mixture can be added in the summer spray-a scale-killer and a fungus-destroyer.

The Hydrated Lime and Kerosene mixture (Limoid) when well made can be sprayed through any nozzle.

TO MAKE THE MIXTURE

Pour the kerosene in a barrel or tank, add the Hydrated Lime (Limoid), and stir with a paddle until they are thoroughly mixed into a thin, "sloppy" mass. In case a little kerosene separates out, sprinkle on a trifle more Hydrated Lime (Limoid) to absorb it: this is only occasionally necessary, unless the Hydrated Lime (Limoid) has become partially carbonated. Add a few gallons of water and stir again to arow the sloppy mass into suspension in the water.

Pour in the balance of the water and agitate most vigorously for three minutes by pumping the mixture back into itself to form an "emulsion." It is then a smooth mixture which flows as freely as pure water through any nozzle.

Laboratory tests have shown that Hydrated Lime (Limoid) and kerosene will stand up; that is, Hydrated Lime (Limoid) and kerosene will not separate for several weeks! Just how long it will remain in perfect condition has not been determined.

The point is to have no free kerosene in the mixture.

Strain the mixture before putting it in the spray tank.

Hydrated Lime and Kerosene (Limoid) spray can be used on a few trees in the garden or on large orchards on the farm with **good success.** In fact, the Hydrated Lime (Limoid) and Kero-

HYDRATED LIME (LIMOID), continued

sene mixture seems to be the most effective San José Scale killer yet discovered that will not injure the trees.

Many people living in cities and towns will soon be without fruit trees or roses if they do not spray to kill the scale.

I offer Hydrated Lime (Limoid) as follows, shipped in bags, by freight or express: 10 lbs. 30c., 25 lbs. 60 cts., 50 lbs. \$1,100 lbs. \$1.25, 500 lbs. \$5, 1,000 lbs. \$9, 2,000 lbs. \$15, 3,000 lbs. \$20.

OTHER LIQUID INSECTICIDES

Bordeaux Mixture (liquid). For rots, blights, mildew and other fungous diseases, on fruit and shade trees. Keeps foliage healthy and green. Commence spraying when leaves are first opening, and keep spraying at intervals of ten days until four or five applications have been made. Ready for use by simply adding water and stirring. Qt. 40 cts., gal. \$1, 5 gals. \$4.50; 1 gal. will make 1 bbl. (50 gals.) liquid.

Bordeaux Mixture and Arsenite of Lime (liquid), Fungicide and Insecticide. Keeps foliage healthy and green and destroys insects that chew. Qt. 60 cts., gal. \$1.50, 5 gals. \$6.50.

Arsenite of Lime. To destroy chewing insects. This insecticide is coming into more popular favor yearly, and is worthy of it, but it is not safe to be used alone. Arsenite of Lime is cheaper than Paris Green, and is more efficient. It will not burn the tenderest foliage, at the strength ordinarily applied, when used in Bordeaux. It requires two quarts of Arsenite of Lime in Bordeaux solution to properly spray two acres of potatoes. Qt. 20 cts., gal. 60 cts., 5 gals, \$2.75.

Kerosene and Hydrated Lime. For sucking insects and San José Scale. Prepared ready for use; 20 per cent mixture for dormant spraying for apples, pears, etc., gal. 25 cts., 5 gals. \$1; 15 per cent mixture for dormant spraying for peaches, plums, etc., gal. 20 cts., 5 gals. 75 cts.; 10 per cent mixture for roses, shrubs, etc., gal. 15 cts., 5 gals. 60 cts.

Whale Oil Soap makes an excellent wash for trees and plants where insects and eggs affect the bark, and for smearing on the trunks of trees to prevent worms from crawling up. Lb. 20 cts., 2 lbs. 35 cts.; if by mail, add 16 cts. postage.

Lime, Sulphur and Salt. For sucking insects and San José Scale. To those who prefer this solution, I can furnish, prepared ready for use, 1-gal. cans at 20 cts. each, 5-gal. cans 75 cts. Heat and apply.

Kerosene Emulsion (concentrated). For pealouse, San José Scale and all sucking insects. 1-qt. can 30 cts., 1-gal. can \$1.

"Fairmount Weed-Killer." For killing weeds in walks, drives, etc. ½ gal. pail, makes 25 gals. treating liquid, for 75 cts.; 1-gal. pail \$1.25, 5-gal. pail \$6.

DRY FUNCICIDES AND INSECTICIDES

The following mixtures can be used in dry-dust blowers. The dry Bordeaux, which contains the same ingredients as the liquid, can be used clear for specific treatment where an exceedingly strong dose is required, or Limoid can be used as a conveyor and can be added to the Bordeaux in the proportion of 10 parts Limoid to 1 Bordeaux, or 20 to 1 to simply keep the trees healthy and thrifty.



Dry Bordeaux (Fungicide). Lb. 22 cts., 5 lbs. \$1, 10 lbs. \$1.75.

Dry Bordeaux and Limoid Mixed (Fungicide). Ready for machine. 25 lbs. 75c., 50 lbs. \$1.25, 100 lbs. \$2, 200 lbs. \$3.50, 500 lbs. \$7.50.

Dry Bordeaux and Limoid, Mixed with Sulphur and Paris Green (Fungicide and Insecticide). 25 lbs. \$1, 50 lbs. \$1.75, 100 lbs. \$3.25, 200 lbs. \$6, 500 lbs. \$13.50.

In many cases the fungicides and insecticides can be used to better advantage in powdered form.

CHAMPION DRY POWDER DUSTER

We recommend the Champion Dry Powder Duster for farm, garden and vineyard. It distributes Paris Green, Hellebore, Sulphur, Dry Bordeaux Mixture, etc., to perfection, and keeps the poison at a safe distance from the operator. Dusts potato-vines as fast as you walk, two rows at a time. It distributes a uniform and almost imperceptible quantity of powder, doing effective work without injuring foliage when used properly. Adjustable to any width row. Price, \$7.50.

THE IMPROVED LITTLE GIANT DUSTER

Smaller and differently constructed from the Champion. Dusts any dry powder. The reservoir will hold nearly one quart of powder. The machine weighs only six pounds, making a very convenient machine for garden. Price, \$5.50.

BELLOWS, AMERICAN

Used for dusting plants with sulphur or like material. Large single cone, \$1.75; small single cone, \$1.



"Iron Age" Farm and Garden Implements



No. 15

No. 15 "Iron Age" Combined Single Wheel-Hoe, Hill and Drill Seeder

In combining these tools, not a single advantage is lost of a separate Single Wheel-Hoe or Seed Drill. As each they are in themselves complete. Changed from one form to another almost instantly. It places the seed in hills or drills. Price, \$10. As a Hill and Drill Seeder only (No. 16), \$7.50.

"IRON AGE" FARM AND GARDEN IMPLEMENTS



As a Wheel-Plow only (No. 11), \$2.25.

No. 12

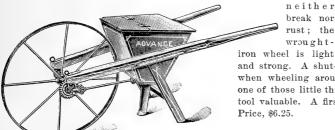
"IRON AGE" FARM AND GARDEN IMPLEMENTS

The New Model Seed Drill

This tool has been in use for years; it always gives satisfaction. It is strongly made, sows any kind of seed with regularity and is one of the steady reliables. Price, \$7.50.

"Adbance" Fertilizer Drill

The "Advance" is one of the best low-priced distributors on the market. Its distributing disk is made of galvanized iron, which can

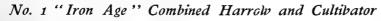


neither break nor rust; the wrought-

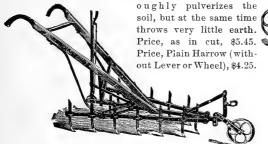
The New Model Seed Drill

and strong. A shut-off, to prevent the escape of fertilizer when wheeling around end of row, is a late improvement; one of those little things which go far, however, in making a tool valuable. A first-class tool for drilling peas and corn. Price, \$6.25.

"Advance" Fertilizer Drill



Its teeth are diamond shaped, with a small cultivator tooth forged on one end. For very close work every other tooth can be quickly removed. This tool is designed especially for the cultivation of berries and small crops, as it thor-



No. 1 "Iron Age" Combined Harrow and Cultivator

No. 6 "Iron Age" Horse-Hoe and Cultivator No. 6 "Iron Age" Horse-Hoe and

Cultibator This is truly a 20th Century tool. It is a popular

implement wherever the sun shines and the crops grow. Its great adjustability adapts it for numberless uses and conditions. Price, as in cut, \$5.50.

ALFALFA

A perennial forage plant, and when once properly seeded in suitable soil will produce fine crops for several years. It has a remarkably strong growth, roots penetrating the ground to a great depth-10 to 20 feet. Sow 12 pounds to the acre.

Alfalfa has been grown with success in every state and territory in the Union. There is not a state from which the report has not gone out that Alfalfa will, when properly treated, become one of the best fodder plants. It is the best hay and soiling crop in the West. In the South it has been widely recommended as a very valuable addition to the list of forage grasses and clovers. In the Middle and Eastern States it promises to become a rival of the better known and more widely grown red clover.

ALFALFA, CRIMSON CLOVER, BEAN SEED, ETC.

Prices on Application

To insure a perfect stand of Alfalfa and Crimson Clover, there should be bacteria in the soil, and this can be best secured by the use of Nitro-Culture, as described on page 14.

NITRO-CULTURE

Doubles Your Crops

A new, sure and easy way has recently been discovered to make worn-out or poor land enormously productive without nitrogenous fertilizers and almost without expense. Plants need nitrogen and cannot grow without it. Heretofore fertilizers have been needed to put nitrogen into the

Specimen plants characteristic of uninoculated and inoculated field of Alfalfa on farm near Bynum, Hartford County, Maryland; the uninoculated plants turning yellow, though sown on ground richer and better than the inoculated field. Gain from inoculation with Nitro-Culture. nearly 500 per cent by weight.

soil. Nitrogen is very necessary—is the most expensive part of fertilizers. The new way is easier, surer, cheaper—it is to let nitrogen-gathering germs feed the plants.

The soil is full of air. Air is four-fifths free nitrogen. Think what limitless plant-food, in the form of **free** nitrogen, the air contains. Right here the new discovery comes in. Plants cannot extract nitrogen from the air, but there are germs that can. These germs have been discovered and are now being used for that purpose.

These germs, when put into the soil, fasten themselves to the roots of the plants, draw the free nitrogen out of the air, and feed it to the plants. That's the secret of the **new** way that is making many farmers rich. The **germs** do the work—the **farmer** gets the profit. They save expense, reduce the work, increase the crop enormously, even make it possible to grow alfalfa and other crops where they **never** would grow before.

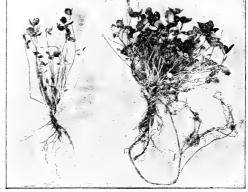
The **new** way saves the cost of nitrogenous fertilizers and is very easy to use. The germs come ready for use, in a form called **Nitro-Culture**, put up in small dry packages you can put in your vest pocket. Simply add it to water, and sprinkle the water over the seeds before planting. The germs remain on every seed—live with it—increase about it—feed the roots when they start and keep on feeding them. They also **enrich** the soil by **storing** nitrogen in it, so that the second year's crop, whatever it may be, is increased from two to ten times.

CLOVER

Does your clover always make a good catch? Does it sometimes leave spots or bare places in your field? Does some of it get killed out by severe winter weather? If so, inoculate the seed with Nitro-Culture and insure, not only a uniform catch, but a healthy, vigorous and largely increased crop.

Crops that Cannot be Treated Directly With Nitro-Culture Get the Benefit Later

The method of rotating crops in order to get the benefit of the work done by the bacteria in the soil, is being largely adopted by progressive farmers in every section, in order to save the cost of fertilizers. For instance, you can take any of the leguminous plants, such as clover, peas, beans, vetch, peanuts, alfalfa, etc., sprinkle the seed with Nitro-Culture before planting them in the usual way, then the little harmless vegetable germs will develop in the soil, and, having the peculiar property of collecting free nitrogen from the air, leave it in the soil in such shape that any crop will be directly benefited by it. In following out this method you not only get a



Inoculated clover on the right, uninoculated on the left, grown in the same plot, from the same seed. (Taken from a photograph.)

largely increased crop the first year, but because the soil is left richer and better at the close of the year than it was before the crop was planted, you can, the second year, plant corn, wheat, pota-

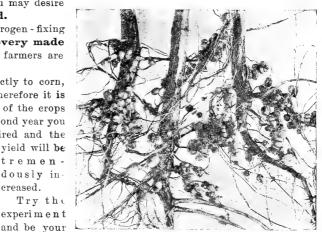
toes, oats, or any other crop which you may desire and obtain a largely increased yield.

We believe the discovery of Nitrogen-fixing Bacteria is the most valuable discovery made during the past century, as far as farmers are concerned.

The Cultures cannot be applied directly to corn, wheat, potatoes, or any of the grains, therefore it is necessary to first plant the field in one of the crops mentioned on our price-list, then the second year you may plant any crop which may be desired and the

The United States Department of Agriculture says:

"It is worse than useless to attempt to grow any leguminous crop without being certain of the presence of the bacteria which enables the plants to fix free nitrogen. Certain regions are practically devoid of the right kind of bacteria, and unless some artificial means of introducing the germs be resorted to the crop will be a failure."



Roots of Soy Beans, showing the nodules which collect the free nitrogen from the air and deposit it in the soil, thus making barren land productive, and after the first crop is harvested the ground is left richer and better for the next year's crop.

own judge. It should be remembered that

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creased.

there are certain unusual conditions of the soil which will prevent the profitable growth of any crop. For instance, Alfalfa will not thrive in an acid soil, and this condition has to be corrected by the use of lime or some other alkali. The use of Nitro-Culture is not, of course, designed to overcome such difficulties, although there is no doubt but that under these circumstances an inoculated crop will produce better results than uninoculated.

PRICE - LIST

Nitro-Culture, sufficient to inoculate the following seeds per acre, mailed to any address in the United States or Canada, good for one year only from date stamped on each package, at the following prices:

Alfalfa
Red Clover
Alsike Clover
Crimson Clover
Burr Clover
Cow-Peas
Black Peas
Garden Peas
Sweet Peas
Wax Beans
Soy Beans
String Beans
Vetch
Velvet Beans
Peanuts
Horse Beans
Lima Beans
Field Peas
Culture for plants not named will be supplied upon application

Culture for plants not named will be supplied upon application.

Trial packages containing sufficient bacteria to inoculate from one-eighth to one-quarter acre will be furnished for 50 cents each.

N. B.—Each variety of crop requires a special culture. Cash should accompany all orders.

POT-GROWN STRAWBERRY PLANTS

We have perfect facilities for packing and shipping pot-grown Strawberry plants in summer and autumn. Pot-grown plants, if set firmly in the ground, will safely endure anything except excessive or prolonged drought, and we advise early planting of next year's fruiting bed.

New Varieties

PRESIDENT. Late. Perfect. Originated in New Jersey. The color is bright and clear, the flesh firm, and the seeds few and widely separated. A very promising berry. 60 cts. per doz., \$4 per 100.

AUTO. A new Delaware berry not yet tested here. Its introducers claim for it large size and fine quality. It produced at the rate of over 8,000 quarts per acre last spring, bearing a fine crop right through dry weather, when other sorts were short. The plant is said to be of unusual vigor and to carry its fruit well up from the ground. Perfect-flowering sort. 60 cts. per doz., \$4 per 100.

CLIMAX. Early. Perfect. The plant is a most vigorous and healthy grower, enormously productive; berries of good size, finely flavored, perfectly formed, ripening extremely early, consequently very desirable. 75 cts. per doz., \$6 per 100.

MEAD. Midseason. Perfect. A new variety from Massachusetts very highly recommended. Described as follows: "Plant of perfect health and vigor; perfect flavoring, perfect form, of highest quality, rich glossy red on outside and has red flesh all the way through; a great cropper, ranking with Clyde, Sample and Glen Mary: a good shipper like Gandy's Prize; will thrive on light land as on any other; has no small berries, all the late formed ones come up to good size." 75 cts. per doz., \$6 per 100.

General List

Brandywine. Perfect blossom. Season rather late; fruit colors all over. Berries large, regular, of conical form; color bright glossy red, which extends to the center; flesh firm, of excellent quality. Very productive. 50 cts. per doz., \$3 per 100, \$25 per 1,000.

Bubach No. 5. Perfect. One of the best varieties we have. In productiveness unsurpassed. Noted for its uniform and large size. The plant is hardy and the leaves endure hot sun, as it is a robust variety; does not rust. 50 cts. per doz., \$3 per 100, \$25 per 1,000.

Excelsior. This is a valuable, early, perfect-blossoming Strawberry. Large, fine color; vigorous plant; firm, productive, and desirable for home use or for market. 60 cts. per doz., \$4 per 100, \$30 per 1,000.

Gandy. One of the best late berries. Plant a good, strong, healthy grower; berry large, firm, regular, bright in color; quality good. Very valuable as a shipper; satisfactory to use with pistillate sorts. 50 cts. per doc., \$3 per 100, \$25 per 1,000.

Glen Mary. An exceedingly attractive berry, as large as Sharpless. Color bright glossy crimson, and so handsome as to bring the highest price in market; moderately firm, and fine in flavor. The plant is vigorous and healthy, very productive; berries maintain their large size until the close of the season. A first-class berry. 50 cts. per doz., \$3 per 100, \$25 per 1,000.

Marshall. Plant is large and strong; very prolific, 110 berries having been counted on a single plant. The fruit is handsome and attractive; very large, 14 berries having been known to fill a quart box. Of perfect form; dark crimson when fully ripe, but colors all over a light crimson before ripe, and is thus valuable for market. Quality and flavor excellent. It will produce fruit for 25 days' picking. 50 cts. per doz., \$3 per 100, \$25 per 1,000.

Michel's Early. Unusually early. Berries bright scarlet, conical, of excellent quality. Resists frost, drought and rust. One of the best berries to fertilize all pistillate sorts. 50 cts. per doz., \$3 per 100, \$25 per 1,000.

New York. Large in plant and fruit. Fruit of regular form, conical, of good color and flavor; valuable. 60 cts. per doz., \$4 per 100, \$30 per 1,000.

Nick Ohmer. Large, regular, dark glossy red, firm and of excellent flavor; very vigorous and productive. 60 cts. per doz., \$4 per 100, \$30 per 1,000.

Rough Rider. A new Strawberry from New York. Seedling of Eureka, fertilized by Gandy. Enormously productive; berries very large, roundish but elongated; color dark red; very firm. 60 cts. per doz., \$4 per 100, \$30 per 1,000.

Sharpless. The plant is exceedingly large, vigorous, free from rust. Fruit moderately firm, good. Midseason. 50 cts. per doz., \$3 per 100, \$25 per 1,000.

William Belt. Berries large, conical, rather long, regular in outline; bright red, glossy; quality good, moderately firm: plants vigorous, healthy and quite prolific. It is of good quality, and will sell well in any fancy market. 50 cts. per doz., \$3 per 100, \$25 per 1,000.



Pot-grown Strawberry Plant

Early planting insures strong growth this autumn and a correspondingly large crop next June

ORDER SHEET

Before making out your order, read carefully remarks on first and second pages of our Catalogue.

Our customers will oblige us by using this sheet in ordering.

		Date,	1 9 0
ARTHUR	J. COLLINS, Mo	orestown, N. J.	
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# Jersey Red Pigs Crimson Clober Seed Nitro-Culture

ARTHUR J. COLLINS

MOORESTOWN, N. J.