New Advertisements.

TREASURER'S SALE

OF UNSEATED LANDS FOR TAXES FOR 1879, AND PREVIOUS YEARS. — Notice is hereby given, that in pursuance of An Act of Assembly, passed the 12th day June, A. D. 1815, entitled An Act to amend an Act directed the mode of selling unseated lands in Centre county," and the several supplements thereto, there will be exposed to public sale or outcry, the following tracts of unseated lands in said county for the taxes due and unpaid thereon, at the Court House in the Borough of Bellefonte, on the SECOND MONDAY OF JUNE, A. D., 1880.

Acres & Per.		Warrantee.	Taxes.
		BENNER.	
250		Thomas Johnston,	$24 00
50		And. Coon,	1 80
58		Robert Holmes,	2 04
50		John Moore,	1 86
50		J. D. Harris,	1 80
2		John Davis,	1 44
100		Foster Tate (owner),	2 60
		BOGGS.	
196		½ of Packer & Lucas,	11 40
305	112	John Cochran,	23 52
379	145	D Karskadden,	30 62
433	163	Jonathan Harvey,	33 40
431	40	Moses Hood,	33 18
418	40	William Hood,	32 18
433	163	Josiah Haines,	33 40
424	78	Garret Cottinger,	32 64
300		Frank McCoy,	23 12
		BURNSIDE.	
200		William Miller,	9 80
433	163	Bird Wilson,	21 27
140		Henry Harris,	8 68
100		Michael O'Bryan,	1 50
439	183	John Rugg,	6 75
415		John Shym,	6 44
415		Eli Canby,	6 44
433	163	Samuel Pancoast,	6 75
379½		David Lewis	5 58
415		John Barron,	6 44
411		Thomas P. Wharton,	12 75
34		Walter Stewart,	1 06
314	22	Paul Cox,	4 28
140	22	John Vaughn,	31 00
433	163	John Donelly,	13 44
433	163	John Kidd,	26 84
433	163	Henry Donelly,	26 84
433	163	Robert Brady,	40 20
433	163	Robert Gray,	26 80
433	163	William Dewart,	13 44
433	163	John Dewart,	13 14
433	163	James Towers,	13 14
433	163	William Gray,	13 14
415		John Weitzel,	12 89
415		James Black,	12 89
415		Joseph J. Wallace,	12 89
433	163	William Cook,	13 44
433	163	John Cowden,	13 44
433	163	William P. Brady,	26 80
433	163	Henry Shaffer,	26 80
433	163	John Housel,	20 15
433	163	John Lyon,	20 15
433	163	Charles Goben,	26 80
433	163	Thomas Grant,	13 44
4 3	163	John Brady,	13 44
415		John Boyd,	25 73
433	163	Alex. Greaves,	13 44
433	163	Joseph Morris,	13 44
433	163	Thomas Hamilton,	13 46
33	163	John Byers,	13 46
15		Jacob Weidner,	12 89
33	163	Benjamin Young,	13 46
433	163	Alex. Hunter,	13 46
433	163	Samuel Hunter,	13 46
433	163	Thomas Greaves,	13 46
433	153	Fsancis Teuch,	13 46
433	153	George Harrison,	13 46
433	153	John Nicholson,	13 46
433	153	Blair McClanahan,	13 46
433	153	Pearson Hunt,	53 81
433	153	George McClanahan,	53 81
433	153	Polly McClanahan,	53 81
433	153	Ann McClenahan,	53 81
433	153	George Meade,	53 81
433	153	Andrew Pettit,	53 81
433	153	William Bingham,	53 81
415		Nathan Levy,	12 89
415		Joseph Thomas,	12 89
433	163	Joseph Wallace,	13 46
433	163	Joseph Wallace,	13 46
433	163	William Bell,	13 46
433	163	Samuel M. Fox,	21 27
415		Sarah M. Talman,	21 85
216	83	of Jeremiah Parker,	3 34
433	163	Alexander Bell,	24 94
433	163	Alex. J. Dallas,	13 46
		CURTIN	
403		Rebecca Kelso,	54 00
196		James Miller,	18 60
203		James Irvin,	24 80
60		Ed. Hallewell,	5 58
415		Esther Eddy,	53 00
415		Casper Wistar,	53 00
380½		Joseph Kelso	8 36
206½		Caleb Lawns,	8 36
207½		Isaac Longstreth,	8 36
433	163	James White,	9 55
337		Lindley Coats,	3 60
415		William Gilbert,	79 20
433	153	Samuel Scott,	38 10
415		Jesse Waln,	26 40
415		Molly Wharton,	27 86
415		Joseph Waln,	27 86
383		Richard Waln,	24 89
380	49	John S. Furst,	28 60
433	163	Thomas Hale,	33 26
415		Jacob Waln,	23 79
320		Jonathan Willis,	24 86
207½		Robert Ainsly,	13 60
415		John McCauley,	18 27
415		Charles Allen,	27 28
217		Fishburn Wharton, ½	14 59
200		Richard Tunis,	17 60
207½		Caleb Lawns, ½	3 58
207½		Isaac Longstreth, ½	3 58
158	93	Job W. Packer,	27 10
135		Henry Donald,	8 16
207½		Robert Ainsly, ½	35 20
100		Richard Tunis,	14 08
433	163	Thomas McEwen,	28 62
217		Fishburn Wharton,	28 65
50		J. W. & S. C. Packer,	2 20
200		Philip Meyers,	35 20
100		Simon Meyers,	13 20
428	48	Michael Meyers,	36 96
½ 434		Joseph Devling,	19 10
½ 326		Job W. Packer,	6 60
110		W. M. Packer,	7 27
300		½ John P. Mitchell,	6 60
½ 326		Job W. Packer,	2 38
15		½ of J. W. Packer,	13
400		J. Z. Long,	15 00
433	163	Benj. R. Morgan,	9 50
		FERGUSON	
50		Isaac Buckley.	3 60
50		Josiah Lushby,	3 60
50		Richard Mosely,	3 60
10		Abraham Hicks,	47
		GREGG.	
20	35	John F. Price,	42
50		John Rote (owner),	2 51
380		Bernard Hubly,	6 48
400		William Taggart,	2 10
400		David Taggart,	2 10
400		William Logan,	2 10
400		John Painter,	2 10
		HAINES.	
436		John Simpson,	4 63
185		John Kidd,	2 07
228	150	William Mosby,	2 44
313	60	Adam Bolinder,	3 33
300	60	Albright Swineford,	3 19
435		Charles Hall,	27 73
		HALF MOON.	
3	50	Abraham Elder,	28
44	11	Thos. Heyskill (owner),	8 10
24		Jac. Vanpool (owner),	4 42
63	89	C. Vanpool estate (owner),	1 44
69	76	C. Vanpool estate (owner),	4 60
40	10	Peggy Shearer,	3 68
		HARRIS.	
407	92	Kearney Wharton,	6 73
100		John Irwin,	2 91
196		J. C. Fisher,	1 96
150		John Irwin,	2 87
400		William Brown,	7 60
2		Michael Brannen (owner),	19
133		George Fox,	3 80
89		John Irwin,	1 70
50		John Irwin,	95
		HOWARD.	
20		William Crossman,	1 17
104	63	John Brady,	16 06
49	142	Samuel Leathers,	5 71
25		Joseph Graysburg,	8 51
		HUSTON.	
120		Adam Kuhn.	14 10
		LIBERTY.	
100		J. & D. Gunsaulus,	2 35
188		Part John Potter,	18 80
175		James A. Quigley,	8 23
30		Ross Baker,	4 23
175		George D. Hess,	8 23
200		Robert & James Hayes	32 00
188		Daniel Kronse,	155 10
10		Samuel P. Shenk, (owner,)	4 70
8		Daniel David,	1 03
		MARION.	
55	18	J. D. Shugert,	2 26
50		W. A. Thomas,	24 60
220		Alexander Scott,	53 28
123	129	Abraham Snyder,	29 52
50		William Allison,	3 60
53		McCalmont,	5 28
42	66	John Corman,	6 04
50		Jacob Deitz, (owner.)	2 40
		MILES.	
425		Henry Toland,	7 54
425		David Williams,	7 54
425		Samuel Norton	7 54
424		Richard Parker,	5 76
424		Jeremiah Parker,	5 76
75		Thomas Tones,	1 33
422	116	John Mackey,	7 51
156	80	Benj. Young,	2 75
75		William Barton,	1 33
200		Robert Gray,	1 77
476		Thomas Grant,	8 43
460		Alexander Hunter,	8 16
450		Jeremiah Jackson,	7 63
125		William Steadman	2 18
150		Robert Taggart,	2 31
200		Thomas Smith,	3 35
300		Aaron Levy,	5 32
450		Robert Brady,	7 63
410		Hannah Brady,	7 62
429		Robert Gray,	7 28
100		Abraham Scott,	1 77
50		Samuel Scott,	89
150		Abraham Scott,	2 67
90		Samuel Scott,	1 60
255		Jane Brady,	4 52
200		John Brady,	3 55
424		George Calhoun,	7 53
419		John Sigfried,	7 45
300		William Parker,	5 32
125		John Dorsey,	2 22
125		Moore Wharton,	2 22
402	134	William Miles,	7 12
26		William Packer,	48
320		Joseph Fearon,	5 86
320	128	George Kitts,	5 46
156	60	S. Derr & Jac. Stahl,	4 61
		POTTER.	
400		William Hoffman,	11 80
400		Daniel Levy,	11 80
136	54	John Stoner,	2 70
45		Jacob Costaborder,	92
90		John Bitner, Sr. (owner),	1 82
580		Parker,	19 37
170		Parker,	5 38
132		Carothers,	2 64
400		Shires Fulmer,	12 60
327		S. & A. Scott,	10 34
138	134	George Foust,	1 38
		RUSH.	
433	153	B. R. Morgan,	67 55
433	153	Thomas Greaves,	17 36
433	153	David Lewis,	17 36
433	153	Philip Eberman,	17 36
433	153	Jacob Wetzler,	17 36
50		John Wells,	2 01
200		Joseph Strong,	8 00
250		Paul Wells,	10 01
400		James Bush,	15 28
300		Thomas Erskin,	12 00
433	163	Bennet Lucas,	17 36
200		John Burg,	8 00
433	163	Henry Pinkerton,	17 36
430	9	James Raney,	17 21
300		Matthias Graff,	12 00
433	153	Robert Irvin,	67 55
433	153	John Funk,	45 02
323		Hugh Patton,	33 58
460	147	Jacob Rush,	63 19
422	44	John Weidman,	65 82
402	116	Jacob Weidman,	62 52
75		Joseph Harrison,	3 91
433	153	Jacob Rudesill,	17 38
433	163	Paul Bush,	67 55
433	163	Paul Black,	67 55
433	163	Paul Such,	67 55
433	163	John Borland,	67 55
433	163	John Kelly,	67 55
433	163	John Bush,	67 55
433	163	John Such,	67 55
400		John Black,	62 40
312		Joseph Wells,	48 66
433	153	Richard Malone,	67 55
433	153	James Toner,	45 02
433	153	John Hambright,	67 55
433	153	Andrew Graff,	67 55
407	137	Christian Musser,	63 05
40		Samuel Chestnut,	6 24
15		Casper Lawrence,	2 35
433	163	John Hopkins,	89 72
433	153	John Wilson,	12 29
433	153	Daniel Buckley,	67 55
433	153	Richard Peters,	22 58
200		John Copenhaver,	10 40
100		John Copenhaver,	5 20
256		of Andrew Allison,	52 00
300		of A. Allison & John Lilly,	62 40
433	153	William Gray,	163 93
6		James Wilson estate (owner),	5 20
		SNOW SHOE.	
40		William P. Mitchell,	2 66
360		John Pim,	46 80
433	153	Kearney Wharton,	56 35
433		Robert Watters,	56 35
100		David Carscaddon,	13 00
433	163	Andrew Summers.	14 04
433	153	Moore Wharton,	56 49
433	153	William Parker,	56 49
433	153	Rebecca Waln,	56 49
433	153	Benjamin H. Tallman,	56 49
433	153	Eli Wharton,	56 49
433	153	A. S. Valentine,	56 49
433	153	M. T. Milliken,	56 49
200		N. J. Mitchell,	26 20
433		George Eddy,	56 37
383		James T. Hale,	49 79
433		James McManus,	56 29
433		Samuel Linn,	56 29
433		Benjamin R. Morgan,	56 29
433	153	Thomas Greaves,	56 35
433		Andrew Bayard,	56 29
434		½ of Samuel Dobson,	28 10
216		½ of Jeremiah Parker,	7 20
300		Job Reilly,	73 20
400		D. Karskaden,	26 00
100		Sarah Bittlehell,	6 50
409	73	N. J. Mitchell,	26 58
412	44	David Carscadon,	53 83
412	44	David Carscadon,	53 83
287	80	David Carscadon,	37 38
433	120	Luke Minser,	28 21
433	153	Francis West,	14 10
433	153	William H. West,	14 10
433	153	John West,	14 10
433	153	D. H. Cunningham,	14 10
368	71	John M. Nesbit,	14 10
300	144	Hugh Pim,	46 87
300	144	John Reiley,	46 87
433		Burd Wilson,	56 32
433	163	Kearney Wharton,	56 87
		SPRING.	
15		John L. Kurtz,	1 47
3		Thomas Harrison, (owner.)	48
92	102	Thomas Thornburg,	5 79
		TAYLOR.	
176		Moses Coats,	47 14
400		James Bush,	31 20
433	163	Thomas McCommon,	33 77
433	163	Ely Hootman,	33 77
100		James Moore,	3 90
50		Vincent Stephens,	3 90
433	163	Lesly Malone,	33 77
433	163	John McCommon,	33 77
176		Moses Coats,	28 56
60		Joseph Yoder,	30 60
434		Hugh Hamilton.	22 14
434		W. W. Montgomery,	44 26
434		John Montgomery,	44 26
150		John Carr,	17 85
280		James Carr,	30 60
100		Michael Weidner,	12 75
100		Michael Weidner,	40 80
80		Jacob Beck,	7 36
100		George Mong,	5 10
433	153	Mary Smith,	33 15
100		William Wilson,	15 30
100		David Ralston,	15 30
50		A. M. Elder,	12 75
250		Clement Beckwith,	63 75
123		Tract No. 1	43 89
180		Tract No. 2	45 90
189		Tract No. 18	48 20
141		Tract No. 8	35 96
210		Tract No. 12	82 08
71		of Thomas McClure,	7 25
90		C. Vanpool,	9 18
397		William Bell,	102 00
		UNION.	
96		R. Molholland,	20 18
100	80	William Brower,	24 75
250		Ann Deal,	41 25
200		P. & R. Kuhns,	20 80
100		Jane Blake,	21 50
100		Samuel Phipps,	21 50
117		Boyce Davis,	6 10
433	153	Robert Stewart,	22 58
398½		Ebenezer Branham,	5 20
139		Samuel Phipps,	14 46
140		John Cooper,	14 56
50		of Boyce Davis,	5 20
82	26	Rudolph Mulholland,	15 95
		WALKER.	
74	96	Christ. Rohrer,	28 60
212		Samuel Barkman,	8 08
100		David Reed,	5 70
560		Mary McEwen,	10 64
261	133	James Sutler,	7 70
40		John Baker,	1 52
46		John McComing.	86
79		Henry Duck, Sr., (owner.)	3 02
		WORTH.	
174		Hoover & Reese,	26 78
180		William Shipen, Jr.,	12 60
433	163	Samuel Scott,	13 46

The sum of fifty cents, cost of advertising, will be added to the taxes and costs in each case.

A. YEARICK, *Treasurer.*

Treasurer's Office, Bellefonte, Pa., April 10, 1880

The Centre Democrat.

BELLEFONTE, PA.

AGRICULTURAL.

NEWS, FACTS AND SUGGESTIONS.

THE TEST OF THE NATIONAL WELFARE IS THE INTELLIGENCE AND PROSPERITY OF THE FARMER.

Every farmer in his annual experience discovers something of value. Write it and send it to the "Agricultural Editor of the DEMOCRAT, *Bellefonte, Penn'a," that other farmers may have the benefit of it. Let communications be timely, and be sure that they are brief and well pointed.*

WEEDS will now come on rapidly, and if permitted to get a good start, much additional labor will be required to put everything in as good condition as is requisite; weeds are not hard to keep in check if taken at the right, time which is *before they come up.*

VEGETABLES must grow rapidly to be of good quality. A little extra trouble in watering, manuring and cultivating makes the difference between crispness, freshness and fine flavor on the one hand, and stringiness, toughness and flatness on the other.

TOBACCO farming is assuming somewhat important proportions in Centre county, and it will interest those engaged in it to learn that in the old tobacco districts the coming crop is likely to suffer materially from a fly which is destroying the young plants. We have not heard of any trouble of this kind in our county, and the crop being comparatively new here, it is hoped that we may escape.

WE are under obligations to Secretary T. J. Edge for an advance copy of the Crop and Stock Report of the State Board of Agriculture for May, 1880, so far as it relates to Centre county. Mr. Edge writes us that this is an average of all the official reports from this county. Taking 100 as representing the condition of crops last year, the report gives the present condition of our main crops as follows: Wheat, 135; Rye, 125; Grass, 95. Stock of all kinds, excepting cows, is reported in average good condition. The acreage of wheat is increased over last year, by some 15 per cent., and corn by 4 per cent. While rye and oats have decreased 5 per cent, an average of the estimates of the cost of farm products for this county gives that of wheat at .72; corn, .31; rye, .55; oats, .24; and potatoes, .20 per bushel, and hay at $9.00 per ton. Clover seed is estimated to cost $3.00 per bushel, and timothy seed $1.80; while butter costs .18 per pound. This probably presents a fair estimate of the cost of producing the above crops, as it is an average of the reports of several gentlemen residing in different parts of the county, who made their estimate under the following instructions from Mr. Edge: "Under head of "Cost of Crops and Stock," I would respectfully ask you to exercise the greatest possible care and exactness. In your calculations please place the work of two horses and a man at $2.50 per day, and of a man alone at *actual wages and board.* Please include in your estimate, taxes, interest, wear and tear of implements, one-half of manure applied to the crop, and all items of actual cost. It is our wish to make this table as near exact as possible."

IN time of droughts keep the soil in the finest possible state. When the entire surface is an inpalpable powder, and stirred frequently, no crop will be destroyed by any drought that can be experienced on the Atlantic slope. Fine dust is a great absorbent of moisture, and of the fertilizing gases that pervade the atmosphere.

IF your cow's teats are sore from any cause, wash them clean with warm water, and then apply glycerine while they are moist. Two or three applications will cure the worst cases and render the teats soft and pliable.

A NEW YORK farmer kills the cabbage worm by sprinkling the plants with common black pepper from an ordinary tin box—a pound to 150 plants—sometimes previously sprinkling with soapsuds from the week's washing.

MANY insects harbor beneath the loose bark of trees, and by scraping this off and washing the trunk and limbs with a solution of soft soap much good may be done.

RYE sown this month will make an excellent summer pasture for milch cows and give a larger return of rich milk and butter.

Cultivating the Corn Crop.

The best mode of cultivation is to begin with the smoothing harrow; this after the corn has made a few inches growth. It will then have secured sufficient root to prevent displacement, the backward pitch of the teeth favoring this, yet at the same time stirring and making fine the soil and destroying what foul seeds may have sprouted; this repeated weekly, or oftener, if the rains will admit, all the while improving the texture of the soil and exterminating weeds. The whole surface is thus worked, including the ground in contact with the plant, which a cultivator will not do, working only between the rows and not nearly so effectually. The work with the smoothing harrow may be continued for weeks till the corn has reached the height of ten or twelve inches. After that use the cultivator, and as long as the corn will allow it; better lose a stalk or hill now and then than let the weeds have a chance; besides the working will favor moisture in a drouth.—*Exchange.*

We entirely agree with the above excepting as to the time of beginning. The first harrowing should be before the corn is up—say within four or five days after planting. We practice this method ourselves, for the following reasons: It destroys myriads of weed seeds, which, lying near or on the surface, have sprouted since the ground was harrowed before planting, while the corn is so far below the surface that it cannot be disturbed. If the first harrowing be deferred until the corn comes up, we must wait until it is two or three inches high, otherwise the tender, white sprout just shooting through the ground will be broken off. This gives the weeds too much of a start, and permits them to become so well rooted that they are difficult to kill. In case the ground has become "baked," as under some circumstances it will, the harrow breaks the crust, and helps the corn "come up." In "dry times," when the corn is prevented from germinating by lack of moisture in the soil, the mellowing of the surface by the harrow is almost as good as a mulch, and will materially help in securing an even stand. This is the case this season. At the time of this writing no rain has fallen since the corn was planted, and there seems to be but little prospect for any soon. The ground is excessively dry, the corn does not "sprout" freely, and there is danger that such of the seed as may have been deficient in vitality or germinating power will fail entirely, and that which does come be seriously delayed. Believing that this may be remedied in part by a thorough mellowing of the surface, we have the "smoothing harrow" going at the rate of twenty-five acres per day—changing teams and men, and keeping the harrow going steadily from daylight until dark. Still another advantage to be gained is the leveling up of the furrows left by the plow or planter, so that after the corn is up, there is much less danger of "covering" it with the harrow or cultivator. For these reasons we believe the proper time to begin cultivating corn is *before it is up,* instead of "after it has made a few inches growth."

Some Seasonable Poultry Hints.

Correspondence of Poultry Yard.

Sprinkle air-slacked lime pretty freely in your hen houses. It will sweeten the air, banish the spider lice, cure the gapes, colds and catarrh in the hens and hen-keeper (?). A hen which raises a brood of early chickens is worth two which do not; an early chicken is worth two late ones; early pullets will lay when eggs are high in price. It costs about one cent apiece to produce eggs; all you get over that is gain. Feed often; it will keep your chickens from straying, from cats, hawks, and you from a quarrel with your neighbors.

The manure from your hen-houses, well composted and well applied to some early crops, will do much toward the keeping of the hens the succeeding season.

Cut Grass Early if You Want to Make Good Butter.

When the grasses are dried, a great part of their aroma has passed away. This element cannot be replaced. Grain and roots may be substituted in part. The nearest we can get to it in preparing our winter feed is to cut the meadows as soon as the first blossoms have appeared. When cut at this time a great share of the aroma is absorbed in the leaves and straw, and retained to give the right flavor to the milk and butter, and also to give the butter the desired color, as well as flavor.

SUNFLOWERS are recommended in the *Dutchess Farmer* for bean poles, planting them at a suitable distance in the garden and planting the beans around them when three or four inches high.

Extracts and Comments.

One of the best corn growers in this country says: "It is better to be a week late than a week early. Thorough preparation is the first requisite. It decreases the labor and cost of cultivation, and assures a good crop, other conditions being favorable. The crop well put in after the ground is warm will catch up and go ahead of that put in hurriedly, in half-prepared soil, though planted two weeks earlier." — *Ohio Farmer.*

All true enough; but don't comfort yourself with this if so be that you were a week or ten days too late because of lack of energy, or want of proper preparation at the proper time.

Gypsum in Agriculture—Composition, Application and Effects.

By the Hon. Geo. Geddes, in Tribune.

Gypsum, commonly called plaster, is composed of 22 equivalents of water, 32 of lime and 46 of sulphuric acid. It is soluble in 500 times its weight of water, or about 1,000 times its bulk, its specific gravity varying from 1.87 to 2.31. It is used for making cement, when there is some carbonate of lime combined with the substances named. Calcination, (which is simply driving off the water by heat) being thoroughly performed, the powdered plaster is wet and quickly made into the desired form, when it rapidly becomes hard. About 18 per cent. of carbonate of lime is found in the plaster quarried near the city which gives it its name (Paris) in Fance. For agricultural purposes gypsum should consist of only the lime, water and sulphuric acid—in which case it will be white. But it is not often found perfectly pure. Oxide of iron gives it various shades of color. Carbonate of lime will be shown by applying acids, when a slight effervesence follows. Clay or other earthy matter, is often mixed with gypsum rock as quarried; plainly to be seen before grinding. We have in New York State extensive beds of gypsum rock that is of excellent quality for agricultural purposes. It is quarried from the beds, and usually placed under sheds to dry before grinding. Under these sheds the rock can be examined, and when found not to effervesce on the application of a strong acid, and to be crystalline all through, light and easily scratched with the thumb nail, and no earthy matter combined, the color of a soft gray, it will make a first-rate fertilizer if ground fine.

When should gypsum be applied to land, how, and in what quantity? *When.*—On meadows, pastures and Winter wheat, early in the Spring, as soon as the ground is settled. On barley and oats and potatoes when fairly up. On young clover early in Spring or immediately after the crop of grain grown with the clover is harvested. On corn, soon as it is fairly above ground. *How.*—A broadcast sowing machine, drawn by two horses, on which the driver rides, sowing a strip eight feet wide, can be purchased for $35. Such a machine will do the work much better than it can be done by casting from the hand, unless the crop be in hills. *Quantity.*—On land that is to be ploughed soon, one bushel to the acre is sufficient, and as the gypsum is so slow in dissolving, it is proper to take into account the time that will be given before the plough will mix it with the earth and measurably end its usefulness. On permanent meadows and pastures, from two to three bushels are often sown on an acre at one application The cost of gypsum will be taken into consideration when deciding on the quantity to be used. Where it is costly, I have heard of good results from the use of one peck on an acre of corn, a very little being given to each hill.

What is its value to the farmer?—That eminent farmer, John Johnston, now nearly ninety years of age, crowned with the respect and love of all that know him, and surrounded by a great circle of friends at his home in Geneva, N. Y., has said more than once, that he would use gypsum on his farm if it should cost him $40 per ton. Some very carefully conducted experiments made at the Michigan Agricultural College showed that one bushel of gypsum sown on one acre of newly seeded clover and timothy produced an increased yield of a ton of hay, in the two and a half years following; it having been mowed five times during that period. Calling a ton equal to twenty-five measured bushels, and the gain to give $5 for this one bushel, we have $125 as the net gain from the use of a ton. Let prudent men cut down these figures till they think they are within proper limits, and then make some trial of this wonderful fertilizer. How does this mineral produce such wonderful results? No man can tell. The scientific man has taken it apart and determined exactly what it is; but why it produces such wonderful effects he has no more knowledge than any of us—and all he or we know on this point is what we have learned by trying experiments, marking results and comparing notes with each other.

I AM of the opinion, from my own experience, that it pays well to feed a good cow at each milking a quantity of good corn meal and bran, even when she is on grass; not to add to the quantity of the butter, but to keep up the strength of the cow. She will pay it back with interest.

How to Restore Fertility to Exhausted Farms.

CROPS THAT WILL BENEFIT THE LAND.

Levi Stockbridge, in Land and Home.

In the attempt to renovate soils, it is neither necessary or wise to rely on one method. The ordinary course of farming may be pursued; and by combining rest, green manuring, crop rotation, and tillage, as the circumstances of the farm and the farmer require, increasing fertility from year to year will be apparent. But while this process is going on, the farmer must, to sustain himself, sell some crop or crops. It is, therefore, important to know whether it will make any difference in his work of soil restoration what crop he sells. Does one crop remove more of the prime elements of fertility from the farm than another? All plants are composed of the same soil and animal materials, but the proportions in different classes vary considerably. The cucumber takes about 2 per cent. of its substance from the soil, clover 10 and tobacco 20. Some store up large quantities of nitrogen; in others the proportion is small. Some are rich in phosphoric acids; others take comparatively little. The elements more generally deficient in soils, and which are the most difficult and costly to supply, are potash, nitrogen and phosphoric acids; the farmer should carefully select for sale those crops which contain the smallest proportional quantity of those elements; and the demands of his market may possibly be such that they will yield the greatest money return. A ton of timothy hay is worth in market a third more than a ton of clover; but for feed and manurial purposes on the farm, a ton of the latter is worth nearly as much as two tons of the former. Sell timothy, but retain and feed clover and those fine grasses known by the general name of English hay. As compared with the root crops, the grains are rich in nitrogen and phosphoric acid. Therefore sell roots, and retain grain. This rule is equally true when applied to animals and animal products. Milk is very rich in nitrogen and phosphate of lime; butter is nearly all carbon. Sell butter, but feed milk, and return its rich elements to the soil which produced them. Animals grown upon the farm are a soil product, made up of its choice elements, exactly the same as plants, and when removed to market deplete it. Mature animals brought to the farm and fattened in barn or pasture, and then exported, carry away the same substance as butter, and leave the soil as fertile as they found it.

Clover Hay, and How to Make It.

W. J. F., in Country Gentleman.

The better way to cure clover hay is to do it almost altogether in the cock. Cut the grass, and after allowing it to wilt a few hours to remove as much moisture as will readily pass off, rake it up and cock it. If very green, make the heaps smaller, but never have clover spread over night unless cut so late in the afternoon that it is not practicable to rake it up the same day. Of course the green clover will "heat" in the heaps, but this is just what is wanted. When clover is heating it is curing more rapidly than in the brightest sunshine. The weight presses the juices to the surface of the stems, and with the thermometer at 100° to 120° or more, curing goes on rapidly. The advantage of this method is that we might make hay nights as well as days.

The old rule to "make hay while the sun shines" is obsolete so far as clover is concerned. As we generally get the grass in cock toward evening, it cures more in the few hours following than in all the hours before it was put up. Getting it up green will cause it to pack readily, and will also prevent most danger from rains unless very heavy or of long continuance. Keeping out rain water is very important. The natural juices of the clover are sweet and rich. They cure into a kind of gum, which cattle and horses relish amazingly, and which is extremely nutritious. When rain water or even dew is mixed with this exuded gum the seeds of ferment are always present, and it is impossible to get the hay in the best condition.

After leaving the clover generally forty-eight hours in cock it will be ready to draw. Sometimes, but not always, it is best to turn the cocks upside down an hour or two before drawing. The hay will often seem damp, almost wet; but if no rain has fallen on it, there will be little danger of further heating. After clover has heated once it is much drier than it seems. Before it has been through this process it will seem much drier than it is. In a large mow, or stack, this heating is too violent and will discolor the hay; but when well cured in small cocks it will dry out more perfectly than sun and air could ever do it. One advantage of clover thus cured is that the leaves are mostly saved. It is got into cocks while quite green, and never much moved afterward. It is more easily cured, and makes better hay if timothy has been sown with the seed at the rate of four quarts per acre.

ASHES or saltpetre, if applied in time, will hold the onion maggot in check.