

More Fertilizer Figures

NITROGEN IN LEGUMES

In answer to the oft-asked question, "Which of the legumes is the best nitrogen-gatherer or soil-improver?" we have generally stated that for practical purposes the nitrogen gathered might be compared on a basis of the amount of growth, or hay produced; and, therefore, in determining which should be used, the suitability of the soil for producing them, the season of the year to which they are adapted, and the manner they fit in with the other crops grown, should form the basis of selection.

While the above statements are in a broad sense true, it may be well, for the benefit of those desiring more definite information, to compute the value of the nitrogen in a ton of each of the common legume hays. This we have done at a valuation of 20 cents a pound for nitrogen.

THE PROTEIN AND NITROGEN IN VARIOUS LEGUME HAYS

Legume Hays	Protein		Nitrogen		
	Per Cent.	Pounds in One Ton	Per Cent.	Pounds in One Ton	Value at 20c Per Pound
Lespedeza	13.8	276	2.20	44.0	\$8.80
Soy Bean	14.8	296	2.37	47.4	9.48
Cow Pea	14.2	284	2.27	45.4	9.08
Crimson Clover	14.0	280	2.24	44.8	8.96
Alsike Clover	12.8	256	2.05	41.0	8.20
Red Clover	12.5	250	2.00	40.0	8.00
Sweet Clover	14.4	288	2.36	47.2	9.44
Alfalfa	14.5	290	2.32	46.4	9.28
Vetch	17.0	340	2.72	54.4	10.88
Velvet Bean	14.0	280	2.24	44.8	8.96
Peanut Vine	10.7	214	1.70	34.0	6.80

PERCENTAGE OF PLANT FOOD CONSTITUENTS IN FRESH ANIMAL EXCREMENTS

Kind of Animal	Excrement	Water		Nitrogen		Phosphoric Acid		Potash	
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Horse	Solid	80	75	0.55	0.30	0.40	0.40	1.25	0.55
	Liquid	20	90	1.35	Trace	1.25	0.45	0.55	0.40
	Mixed	—	78	0.70	0.25	0.55	0.40	0.45	0.40
Cow	Solid	70	85	0.40	0.20	0.10	0.40	1.35	0.45
	Liquid	30	92	1.00	Trace	1.35	0.45	0.45	0.40
	Mixed	—	86	0.60	0.15	0.45	0.40	0.45	0.40
Pig	Solid	60	80	0.55	0.50	0.10	0.40	0.45	0.40
	Liquid	40	97	0.40	0.10	0.10	0.45	0.45	0.40
	Mixed	—	87	0.50	0.35	0.35	0.40	0.45	0.40
Sheep	Solid	67	60	0.75	0.50	0.10	0.45	0.45	0.40
	Liquid	33	85	1.35	0.05	0.10	0.45	0.45	0.40
	Mixed	—	68	0.95	0.35	0.35	0.40	0.45	0.40
Hen	Mixed	—	55	1.00	0.80	0.80	0.40	0.45	0.40

COMPOSITION OF DRIED OR WATER-FREE EXCREMENTS

Kind of Animal	Portion of Excrement	Nitrogen		Phosphoric Acid		Potash	
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Horse	Solid	2.20	1.20	1.60	1.20	1.20	1.60
	Liquid	13.50	—	—	—	12.50	—
Cow	Solid	2.65	1.35	0.65	0.65	17.00	—
	Liquid	12.50	—	—	—	—	—
Pig	Solid	2.75	2.50	2.00	2.00	15.00	—
	Liquid	13.00	4.00	15.00	—	—	—
Sheep	Solid	1.90	1.25	1.15	1.15	14.00	—
	Liquid	9.00	0.35	—	—	—	—

PLANT FOOD CONSTITUENTS PRODUCED ANNUALLY IN EXCREMENTS BY FARM ANIMALS PER 1,000 POUNDS OF LIVE WEIGHT

Kind of Animal	Nitrogen		Phosphoric Acid		Potash		Value of Plant-Food Constituents
	Solid	Liquid	Solid	Liquid	Solid	Liquid	
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	
Horse	79	49	43	—	58	45	23.60
Cow	76	80	38	—	19	108	29.60
Pig	101	49	92	12	73	55	30.60
Sheep	62	57	42	2	38	88	24.25
Hen	85	—	68	—	32	—	18.70

State Veterinarians and Livestock Sanitary Officers

READERS of The Progressive Farmer wishing information regarding any infectious or contagious disease, the laws governing the shipment or movement of livestock, or any other matters relative to State livestock sanitary matters should write their officials as follows:

- Alabama—Dr. C. A. Cary, State Veterinarian, Auburn.
- Arkansas—Dr. R. M. Gow, State Veterinarian, Fayetteville.
- Florida—Dr. Chas. F. Dawson, Veterinarian to the State Board of Health, Jacksonville.
- Georgia—Dr. Peter F. Bahnsen, State Veterinarian, Atlanta.
- Louisiana—Dr. E. Pegram Flowers, State Veterinarian (Secretary and Executive Officer of State Livestock Sanitary Board), Baton Rouge, La.
- Mississippi—H. E. Blakeslee, Pres. Livestock Sanitary Board, Jackson; Prof. A. Smith, Sec. Livestock Sanitary Board, Agricultural College, Miss.; Dr. E. M. Rank, State Veterinarian, Agricultural College.
- North Carolina—Dr. B. B. Flowe, State Veterinarian, Raleigh.
- Tennessee—Dr. Geo. R. White, State Veterinarian, Nashville.
- Texas—W. N. Waddell, Chairman Livestock Sanitary Commission, Ft. Worth; Dr. E. R. Forbes, State Veterinarian, Ft. Worth, Texas.
- South Carolina—Dr. M. Ray Powers, State Veterinarian, Clemson College.
- Virginia—Dr. J. C. Fernyhough, State Veterinarian, Burkeville, Va.

List of Our Senators and Representatives in Congress

IF YOU wish to write to your Senator or Representative in Congress, a letter addressed to him simply at Washington, D. C., will always reach him if you address your Senator as "Senator," and put "M. C." (Member

of Congress) after the name of your Representative.

The following are the Senators and Congressmen from our territory:

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- South Carolina—Ellison D. Smith, Ben. R. Tillman.
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- Texas—Hon. Ed. R. Kone, Austin, Director of Farmers Institutes; Prof. C. M. Evans, College Station, Supt. Agricultural Extension Work.
- South Carolina—Prof. W. W. Long, Chief of Extension and Farmers Institute Division, Clemson College, S. C.
- Virginia—

al College, Director of Farmers' Institutes and Agricultural Extension Work.

North Carolina—T. B. Parker, Raleigh, Director of Farmers' Institutes; T. E. Browne, West Raleigh, Agricultural Extension Work.

Tennessee—East Tennessee, Pres. Farmers Institutes, W. D. Stokesley, Cleveland; Secretary Farmers Institutes, Prof. H. A. Morgan, Middle Tennessee—Pres. Farmers Institutes, Robt. Gallagher, Spring Hill; Secretary Farmers Institutes, T. G. Settle, Shelbyville. West Tennessee—Pres. Farmers' Institutes, R. T. DeBerry; Secretary Farmers' Institutes, J. D. Johnson, Jackson. Prof. Chas. A. Keffer, Knoxville, Director Agricultural Extension Work.

Texas—Hon. Ed. R. Kone, Austin, Director of Farmers Institutes; Prof. C. M. Evans, College Station, Supt. Agricultural Extension Work.

South Carolina—Prof. W. W. Long, Chief of Extension and Farmers Institute Division, Clemson College, S. C.

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PROOF THAT SHALLOW CULTIVATION PAYS

At the Illinois Experiment Station all the roots within three inches of the top of the ground were cut three times during the season, at one foot from the stalk on all four sides. Seventeen rows on each of eight plots were root-pruned, while a like number of rows on these same plots were not pruned. The year was an unusually favorable one for corn, and the following yields per acre were obtained:

Number of Plot	Pruned Bushels Per Acre	Unpruned Bushels Per Acre	Difference in Favor of Unpruned
1	92.3	98.2	5.9
2	85.5	94.0	8.5
3	93.4	95.3	1.9
4	85.2	86.6	1.4
5	91.0	97.0	6.0
6	83.2	87.0	3.8
7	92.8	95.5	2.7
8	89.2	86.9	3.7

HOW A WEEDER PAYS.

A Tennessee farmer, Mr. A. O. Ring, of Franklin County, put the matter none too strongly when he wrote us some time ago.

"When the ground is in good condition and weeds and grass just starting, one man and one mule with a weeder can kill more grass and conserve more moisture than two men and teams can possibly do with plows, or more than four men and mules can do with old-fashioned one-horse plows."

HOW TO MAKE WHITEWASH.

- For interior work: Walls, ceilings, etc:
 - Slake 62 pounds (1 bushel) quicklime with 15 gallons water. Keep barrel covered until steam ceases to rise. Stir occasionally to prevent scorching.
 - Two and one-half pounds rye flour. Beat up in one-half gallon cold water then add two gallons boiling water.
 - Two and one-half pounds common rock salt. Dissolve in two and one-half gallons hot water.
 - Mix (2) and (3), pour into (1) and stir till thoroughly mixed.
 - For exterior work: Buildings, fences, etc.:
 - Sixty-two pounds (1 bushel) quicklime. Slake with 12 gallons hot water.
 - Two pounds common table salt, one pound sulphate of zinc, dissolved in two gallons boiling water.
 - Two gallons skimmed milk.
- Pour (2) into (1), then add (3) and mix thoroughly.
- A pound of cheap bar soap dissolved in a gallon of boiling water and added to about five gallons of thick whitewash will give it a gloss like that of oil paint.—From Farmers' Bulletin No. 474.

TESTS OF "THE WILLIAMSON PLAN" OF CORN GROWING.

- The Alabama Station tests, 1906—Result: Increased yield of one bushel per acre by Williamson Plan.
- The J. C. Stribling tests, 1906—Result: Equal quantities of fertilizer. Williamson Plan giving six bushels less per acre than ordinary plan.
- The South Carolina Experiment Station tests, 1907—Results: Test of nineteen plots, average loss per acre by Williamson Plan 4.28 bushels.
- Variety test, average loss per acre by Williamson Plan 6.6 bushels.
- Worn-out soil test, no fertilizer, average loss per acre by Williamson Plan, 6.2 bushels.
- Worn-out soil test, using 900 pounds fertilizer, average loss per acre by Williamson plan, 4.5 bushels.

SOY BEANS A GREAT BEEF FEED.

At the Tennessee Experiment Station an acre of corn fed two steers 54 days and made 202 pounds of beef.

An acre of cowpeas fed two steers 54 days and made 227 pounds of beef.

An acre of soy beans fed two steers 80 days and made 540 pounds of beef.

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