

Dead leaves inadequate as sole food for deer

UNIVERSITY PARK — Dead leaves can help feed deer in fall and winter but lack the nutrients needed to maintain weight, as shown in feeding studies at Penn State.

The experiments at the Penn State Deer Research Facility found dead leaves can provide nearly three-fourths of the energy deer need to sustain their winter weight, provided the rest of the nutrients come from higher quality forage.

"We notice deer eat a substantial amount of dead leaves falling from trees at the Deer Research Facility," stated David L. Snyder from King of Prussia, graduate assistant in animal nutrition.

"Until recently, no one knew the nutritional value of dead leaves," he added. "Then we determined that the digestible energy of leaves was 33 percent. It is known that a deer can maintain its winter weight on forage that has about 50 percent digestible energy."

Fawns were used in winter feeding trials since their needs are more critical than those of mature deer. Fawns retain their appetite in winter and generally sustain their body weight, he said, whereas adult deer commonly reduce their feed intake and lose weight.

Snyder says he feels

30 percent is an accurate estimate of digestible energy content for most autumn leaves.

Three trials were carried out from January to March of 1980. The first involved fawns fed only sugar maple leaves. A second trial fed leaves plus a small amount of deer ration as developed at Penn State. This supplemental feed provided only one-fourth of each fawn's winter needs to sustain weight. These two trials lasted 22 days each. The third experiment used only the complete deer ration and ran for 17 days.

Feces were collected to determine digestible energy during the last 10 days on leaf diets and the last 7 days on the complete ration. Body weights were recorded before and after each feeding trial.

Fawns on the all-leaf diet lost an average of nearly one-half pound per day, Snyder reported. When fed dead leaves and supplement, weight loss was reduced to one-fourth pound per day.

Snyder indicated the energy of the complete deer ration was 73 percent digestible. For a fawn to maintain its winter weight, as mentioned earlier, suitable "mast" or forage should contain about 50 percent digestible energy. Adding the ration

supplement to leaves raised the total digestibility to 44 percent, from the level of 33 percent for leaves alone. These were actual results from the three feeding trials.

Digestibility of dead leaves was double-checked with a shorter laboratory method known as "in vitro," meaning outside a living body. The maple leaves were chopped and mixed with rumen or stomach fluid from a cow. Microbes in the fluid digested the feed in as natural a condition as the laboratory could provide.

The results showed a digestible energy level of 31 percent for dead leaves alone, very close to the 33 percent obtained with the traditional and more costly feeding trials.

"We now believe that many kinds of deer forage can be analyzed 'in vitro' without the expense and effort of digestion trials," Snyder commented.

The Penn State studies of dead leaves for deer rations will be published in the fall issue of "Science in Agriculture," the

quarterly magazine of University Park. Co-authors on the article are Robert L. Cowan in

animal nutrition and ningham, former undergraduate student in animal bioscience. Patricia M. Cun-

Seminars on soybean marketing

ST. LOUIS, Mo. — From field to elevator may not be the most profitable route for the 1981 soybean crop. And producers can find out why this winter at marketing seminars sponsored by the American Soybean Association and Blazer herbicide.

The seminars are planned for 11 locations — concentrated in the heart of soybean country — from December 1981 through February 1982.

The seminars are designed to better equip soybean growers to decipher the complexities of marketing so they can pick the right time and right price for sales. They will explore how the market operates, what fundamental and technical signs to watch and how to use a variety of selling mechanisms.

The "faculty" are experts from the fundamental, technical and cash fields. Thomas Hieronymus, agricultural economist from the University of Illinois, will cover

fundamental price indicators. A variety of marketing strategies will be discussed in depth by Tom Weidner, manager of the grain division for the Andersons. Rick Brock of Brock Associates will provide an introduction to marketing and convene a workshop of chart analysis. And representatives of ASA and Rohm & Haas will be on hand to answer questions.

Growers attending will leave with a better understanding of how prices are determined and how to use that information for profit.

A one-day seminar will be conducted at Salisbury, Md. on Feb. 16, 1982.

Full details on the marketing

seminars are available from the American Soybean Association, Box 27300, St. Louis, Missouri 63141 or by calling ASA at 800/325-1499.

SCHEDULE BELOW:

One Day Seminars
(Seminar is held from approximately 9:00 a.m. - 4:30 p.m.)
Dec. 11 Nashville, Tennessee
Feb. 8 Lake Charles, Louisiana
Feb. 9 Memphis, Tennessee
Feb. 10 St. Louis, Missouri
Feb. 11 Fort Wayne, Indiana
Feb. 16 Salisbury, Maryland
Feb. 17 Florence, South Carolina
Feb. 22 Kansas City, Kansas
Feb. 23 Mankato, Minnesota

Two Day Seminars
(Seminar is held on two consecutive mornings).

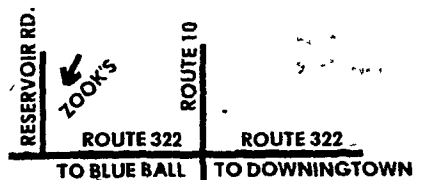


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SATURDAY, OCTOBER 31, 1981

AT 9:00 A.M.

273-2943

By ZOOK'S FARM STORE, Reservoir Road, P.O. Box 580, Honey Brook, PA 19344. From Honey Brook, take Rt. 322 West to Reservoir Rd., turn right, drive ¼ mile store.

DOOR PRIZES

Wheel Barrow — 3/8 Inch Electric Drill Kit — ½ Inch Drive Socket Set — Hand Pump Sprayer — Garden Hose and others. All adults who register for an auction number by 9:00 a.m. are eligible to win these door prizes. Drawing to be held at close of auction, you must be present to win.

NEW FARM EQUIPMENT

Matthews 2-Row Stalk Chopper; Ezee Flow Hay Rake; McConnell 4-Row Cultivator; Vicon PS600 Fertilizer Spreader; 3 Bicon PS500 Fertilizer Spreaders; Hanson 200 Gal. Field Sprayer; 3 Vicon 4 Wheel Rakes; Calhoun VFT 1-Row Cornpicker; 3 Taylorway 8-Ft. Disc Harrows; Taylorway 5 Shank Chisel Plow; 6-Ft. 3-Pt. Blade; Danuser Post Hole Digger; Lentz Chisel Plows; Sprayer Boom Assembly; Pickup Truck Cattle Racks.

USED FARM MACHINERY

New Idea 3-Pt. Fert. Spreader; 200 Gallon Sprayer Tank; New Idea Manure Spreader; Cole 4-Row Cornplanter; Black Hawk 2-Row Cornplanter; Glencoe 5-Shank Soil Saver; Better Bilt Vacuum Pump; Zook Gasoline Hyd. Unit; Bedding Chopper; Mohawk 7-Tooth Chisel Plow; Antique Ferguson Crawler Tractor.

LIVESTOCK EQUIP. & SUPPLIES

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USED LAWN & GARDEN EQUIPMENT

8 H.P. Rear Tine Rototiller; John Deere 55 Riding Mower; Hahn Eclipse 21" SP Mower.

POWER TOOLS

Jig Saws — Drills; Circular Saws; Sanders — Grinders; Rockwell Radial Arm Saw.

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AIR TOOLS

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PUMPS

Sludge Pumps; Sump Pumps; Impeller Pumps; Sprayer Pumps; Piston Pumps.

ORDER OF AUCTION: 9:00 A.M. auction begins with hardware and small items, 11:00 A.M. lawn and garden equipment, 12:00 Noon farm equipment. Due to normal daily business some items may be deleted and others added.

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