

FARM AND RANCH BULLETIN

Vol. 19, No. 6

June 1964

FUTURE BLEAK FOR DROPOUTS

A high school dropout faces prospects of unemployment, a low-paying job, and a lifetime of meager income, according to the Economic Research Service. In most states, a boy can quit school when he reaches 16, and many do in an effort to start earning money. However, getting a job is a serious problem for dropouts, and obtaining a good job without a high school education is practically impossible.

Although the number of 14- to 24-year-olds in the United States who were school dropouts declined from 7.8 million in 1950 to 6.1 million in 1960, the problem is still serious, says the ERS. In 1960, for example, 27 percent of all youths dropped out of high school before completing the 12th grade. An additional 3 percent were retarded two or more grades and were likely to quit before graduation.

Generally, the more education a person has the more money he earns in a lifetime. Moreover, unemployment rates are far higher for dropouts than for graduates. A larger proportion of farm youths than city boys fail to complete high school. Only a small proportion of rural boys can expect to become farmers; therefore, most of them seek employment in the city. With poor qualifications, dropouts are likely to be hired for only the most menial tasks at minimum wages.

In 1960, about 385,000 persons in the 14- to 24-year-old category had less than 5 years of schooling. They are, for most practical purposes, illiterate. The growth of the school-age population lends itself to some ominous pro-

jections, according to the ERS. For example, by 1970, there probably will be about 56.4 million persons 14 to 24 years old in the United States. If the dropout rate for this age group remains at the 1960 level, about 12.9 million of these young people will fail to complete high school.

Providing a high school education for the dropouts 14 to 19 years of age who have already completed at least 1 year of high school would be expensive. In 1960, there were about 1.5 million youths in this category. The cost for educating a high school student is about \$472 a year. On this basis, approximately \$1.4 billion would be required to provide further education for these students. The ERS says

U. S. Bureau of the Census studies indicate that additional education sharply increases lifetime earnings. Based on these studies, the table below shows the estimated earnings during the working years of a normal lifetime for people of various educational levels.

<u>Education</u>	<u>Estimated earnings</u>
4 years of college	\$268,000
1-3 years of college	190,000
4 years of high school	165,000
1-3 years of high school	135,000
8th grade education	116,000
5-7 years elementary	93,000
1-4 years elementary	72,000
No education	58,000

that the additional cost would be more than justified by the benefits of education to the individual, as well as to society, in the form of higher incomes, increased knowledge and skill of the labor force, and the reduction in rates of unemployment and welfare expenses.

Reflective Paint for Rice Bins

The benefits derived from the use of reflective paint on rice storage bins are described in a recent report issued by the U. S. Department of Agriculture in cooperation with the Texas Agricultural Experiment Station.

Studies by the USDA's Agricultural Marketing Service researchers indicate that rice in bins painted with reflective paint remains at a lower temperature and has slightly higher germination than does rice in bins painted in the standard way. During the hottest hours of summer days, the empty space above the grain in the bins on which reflective paint is used is also much cooler than the space in standard painted bins.

Details of the study are included in the report, *Use of Reflective Paints on Rice Storage Bins*, AMS-531. Single copies of the release may be obtained from the Marketing Information Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C. 20250.

Hay Important to Livestock Output

Hay may be considered as the "glue" that holds the Texas livestock industry together during the winter months, according to Shannon Carpenter, Area Dairy Specialist with the Texas Agricultural Extension Service. However, hay barns across the State were left empty as a result of the limited hay supply in 1963, coupled with the long, cold winter which necessitated heavy supplemental feeding. Recent rains are expected to help alleviate the supply problem, but because of the large volume of hay needed each year, Texas cattlemen face a big challenge in refilling the empty hay barns during the next few months.

In order to reach this goal, farmers and ranchers must follow good hay-producing prac-

tices, says Mr. Carpenter. The "Build East Texas" program has established a plan to reach a goal of 12 tons of hay per acre annually. Some of the practices recommended under this program may be desirable for other areas of the State, according to the dairy specialist.

These practices include the selection and planting of the best hay crops, maintaining well-established hay meadows, keeping soil fertility levels high, controlling weeds, harvesting often and in early stages of growth, and good handling and storage of the hay.

Tests repeatedly have shown that higher-quality roughages result in better performing ability of animals. One ton of good-quality hay produced by the practices outlined often contains more feed nutrients than do 5 tons of low-quality hay.

Two major points should be considered at harvesttime. As the hay crop matures, crude protein decreases and crude fiber increases. Hay producers are advised not to sacrifice quality for quantity. The crop should be cut early and often.

New High-Yielding Broomcorn

The seed of a new broomcorn, named Dex, is being distributed to seedsmen, reports the U. S. Department of Agriculture. The variety is both high-yielding and anthracnose-resistant.

Dex was developed by scientists of the USDA's Agricultural Research Service in cooperation with the Oklahoma Agricultural Experiment Station. In 7 years of testing at Woodward, Oklahoma, the new broomcorn averaged 559 pounds of good-quality brush per acre, compared with 411 pounds for Renel's Dwarf No. 11 and 379 pounds for Black Spanish — the predominant broomcorn varieties grown in Oklahoma. The brush of Dex broomcorn averaged 1 inch shorter than that of Black Spanish and 2 inches shorter than that of Renel's Dwarf No. 11.

Dex grows only as high as western dwarf broomcorn — about two-thirds the height of such standard broomcorns as Black Spanish — and is slightly shorter than Renel's Dwarf No. 11. Dex reaches maturity midway between

Black Spanish and Rennel's Dwarf No. 11, being ready for harvesting in 85 days as compared with 79 for the Black Spanish type and 91 for Rennel's Dwarf No. 11.

A limited quantity of Dex seed may be obtained from the Oklahoma Foundation Seed Stocks, Inc., Oklahoma Agricultural Experiment Station, Stillwater, Oklahoma. The USDA has *no* seed for distribution.

New Clover for Gulf Coast Pastures

Certified seed of a high-yielding new Persian clover, called Abon, will be available to Gulf Coast ranchers for planting this fall if seed producers succeed in increasing the available seed supply, reports the U. S. Department of Agriculture. A total of 400 pounds of foundation seed of the new clover was distributed for increase last fall by the Rice-Pasture Research and Extension Center of the Texas Agricultural Experiment Station.

Abon — a winter annual forage legume — is expected to improve the grazing potential of ranges along the Gulf Coast, where minimum temperatures do not fall below 10° Fahrenheit. The new variety provides earlier grazing in the fall and later grazing in the spring than does common Persian clover.

In trials, Abon produced more forage than did either common Persian clover or white clover under frequent, close mowing to simulate grazing. The new variety's resistance to plant lodging and seed shattering also proved superior to that of common Persian clover.

For an extra \$2 or \$3 a year, a home can be built that will outlive the mortgage and require little care, points out Bill Smith, Forester with the Texas Agricultural Extension Service. Through the use of preservatives, wood can be protected from insects and decay for 40 years or longer while repair and maintenance costs are kept at a minimum. All exterior woodwork and floorsills, beams, and joists should be pressure-treated for complete protection of the structure. Mr. Smith advises the use of pressure-treated lumber when replacing the exterior wood or supports.

Greenhouse Tomatoes in Texas



Greenhouse tomatoes are a booming small industry in Texas, says John Larsen, Horticulturist with the Texas Agricultural Extension Service. Because of their outstanding quality, greenhouse tomatoes bring a premium of about 10 cents per pound. A special taste and texture result from the tomatoes being "vine-ripe," a characteristic that gives them field-fresh flavor.

Mr. Larsen states that greenhouse tomatoes should not be confused with "hothouse" tomatoes. Hothouse tomatoes are picked green in the field and then ripened in a warm room.

The availability of low-cost plastic greenhouses has resulted in increased interest in greenhouse tomatoes in recent years. A plastic building can be constructed for 40 to 60 cents per square foot, whereas a glass house costs more than \$2 per square foot.

Temperature control and ventilation are two major factors in producing greenhouse tomatoes. The tomatoes cannot stand freezing temperatures; yet, south Texas growers often plant in October to avoid extremely warm weather. In north Texas, greenhouse tomatoes are usually seeded in September. In order to maintain temperatures at the proper level, evaporative coolers are used in warm weather and furnaces in cold weather.

The specialist says that good management is very important in the production of greenhouse tomatoes. Plants should be watered two to five times each week, and as many as 15 fertilizer applications per crop may be required. Manual pollination should be done every other day.

New Chicken Products

Considerable work is being done toward developing new products from chicken, reports the Texas Agricultural Extension Service. Items such as chicken frankfurters, chicken bologna, chicken sticks, smoked chicken, and chicken loaf are being marketed. Convenience products — including chicken rolls, canned or frozen chicken a la king, frozen barbecued

chicken, canned or frozen chicken chow mein, pouch pack chicken fricassee, frozen chicken pies, and TV dinners — continue to meet with consumer approval. Many of these products are now on the market, and others are being market-tested and will appear soon.

Streamlining Lamb

“Streamlined” lamb carcasses are being considered as a means of fostering lamb sales in the wholesale and retail markets, states Frank Orts, Meat Specialist with the Texas Agricultural Extension Service. The streamlined carcass has the plate, flanks, brisket, and fore-shanks removed.

The carcass is being studied at Texas A&M University as a part of the investigations into the different types of lamb carcasses. The work is aimed at studying the yield of retail cuts from lamb carcasses. The researchers are seeking to determine how fatness, weight, muscular development, breeding, and sex affect this yield, according to Mr. Orts.

An additional part of the research is to study the relationship of tenderness to meatiness and carcass quality of lamb. Taste panels and tenderness testing machines are being used to determine this relationship.

Many lamb producers have contributed animals for use in the research. The A&M scientists hope their findings will aid the lamb industry in both Texas and the Nation.

Moisture Meter for Hay

A fast and accurate moisture meter for determining the moisture content of hay may soon be available to farmers, reports the Agricultural Marketing Service. The instrument is portable, can be used in the field with no special preparation, and provides a moisture content reading within 2 or 3 minutes.

Knowing the moisture content of forage crops has always been important to farmers. Hay containing an excessive amount of moisture when harvested tends to pack, resulting in heat and mold damage, while hay that is too dry tends to shatter its leaves and become brittle, discolored, and dusty.

Recent developments in harvesting, storage, and preservation of hay have increased the need for fast, accurate, simple, and versatile methods for determining the crop's moisture content. Albert W. Hartsack, Jr., an Agricultural Engineer with the Agricultural Marketing Service, designed and constructed a press and holder for the hay sample to be tested, along with an electrode and a simple electrical circuit. The hay sample to be tested (alfalfa in this case) is placed in a cylindrical holder, and the holder is placed under a compression electrode. A hydraulic jack then exerts a pressure of 600 pounds per square inch on the hay sample, a meter is adjusted, and the moisture content is noted.

The instrument was measured for accuracy in tests using the widely recognized ovendrying method as a control. Although accurate, the ovendrying method (which dries known weights of hay and calculates moisture content from the weight loss of the hay) is slow and cannot be used satisfactorily in the field.

The readings from the moisture meter and the calculations made in the ovendrying tests were highly correlated. The meter measurements were sufficiently accurate for the instrument to offer promise as an important tool during haymaking, reports Mr. Hartsack.

In its present stage, the meter cannot be used with hay containing moisture of more than 50 percent, because juices squeezed out by the high pressure cause erratic and meaningless readings. Changes and improvements to increase the efficiency of the meter and provide calibration guidelines for use with hay crops other than alfalfa are now being tested.

Eroded cropland, rangeland, and woodland — coupled with the resulting problems of sedimentation — cost the United States nearly \$1 billion a year, states the Economic Research Service. The potential loss from floods amounts to another \$955 million, with one-half of the possible loss being agricultural. It is estimated that over one-half of the Nation's 311 million acres of harvested cropland have a major problem of water erosion. Another 32 million acres of grazing land need erosion treatment.