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Seed Outlook and Crop Varieties for 1960

Using high-quality seed of adapted and tested varieties is an important part of good farming in 1960 or any year. New to this section this year is the outlook for seed of some of the varieties you may want to plant.

by H. E. Thompson, E. R. Duncan, W. H. Bragonier and Malcolm C. Shurtleff

The supply of crop seed generally is adequate for planting in 1960. Seed of a few forage crops and of some particular crop varieties may be in short supply.

Excellent yields of good-quality seed are being reported by the hybrid corn companies. Adequate supplies of your favorite hybrids should be available next spring.

With more than 5,000 acres of certified Ford soybeans grown in central Iowa in 1959, the supply of this variety may be in surplus in this area. Ford wasn’t grown in southern Iowa last year, but the demand for seed should be high in this area. With good distribution, the demand for this variety should be met. Seed of other soybean varieties are in normal supply.

A normal supply of certified oat seed will be available for planting this spring. But some varieties will be in short supply. Newton oats, for example, did very well last year in areas where yellow dwarf (red leaf) was severe. Demand for this variety is likely to exceed supply.

The supply of alfalfa, red clover, sweetclover, alsike clover and timothy seed exceeds past demand by a considerable margin. The quality of alfalfa seed, however, will probably be lower than normal. The ladino clover supply is about equal to past normal demand. Bromegrass and orchardgrass seed supplies, on the other hand, are less than the amounts of seed used of these crops in recent years. The quality of bromegrass seed also may be lower than usual.

The cost of seed corn will be approximately the same as it was a year ago. The same will be true of the older varieties of oats and soybeans. New varieties, such as Ford and Shelby soybeans and certain varieties of oats—Nebraska, Clintland 60, Minton and Goodfield—will command a premium. New varieties of these crops always command a premium—whether they’re better than existing varieties or not.

Alfalfa, red clover, alsike clover and sweetclover seed prices will be about the same as they were a year ago. It’s possible that alfalfa seed prices may move up slightly in the spring. The price of ladino clover seed will be higher.

Bromegrass seed prices will be about $10-$15 per hundred higher, and orchardgrass will be up around $10 per hundred. This is expected since past average demand exceeds the seed supply of these crops. Timothy seed will be down $3-$4 per hundred. But the price may climb later this spring. There isn’t enough orchardgrass and bromegrass to meet the demand for these grasses, and timothy may be substituted for them.

Taking this situation into account, you may want to reserve your supply of seed for particular crops or varieties by ordering early.

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The suggestions made in this article are based on the results of research projects in agronomy and in botany and plant pathology. The suggestions have been reviewed by representatives of the Iowa Crop Improvement Association, the Iowa Seed Dealers Association and the Iowa Department of Agriculture.
Corn seems to dominate Iowa crops more each year. Advances in production techniques and more general acceptance of improved practices is making this possible. Favorable weather plays a major role, too. The highest average yield ever produced in Iowa was achieved in 1959 on the largest number of acres ever planted to corn in the state. Today’s hybrids have the yield potential to take advantage of other advances.

Growers are giving more attention to fitting the hybrids they choose to specific farming operations, harvesting equipment and storage facilities.

Fall plowing: When fall plowing is desirable or necessary, plant part of the acreage to an earlier hybrid so that you can start picking in October. Heavier planting can help minimize yield reductions.

Harvesting operations: Picker losses are minimized with a kernel moisture between 25 and 27 percent. Picker adjustment problems are reduced when all corn is picked at about the same moisture content. Field losses increase rapidly, regardless of harvesting equipment, as moisture drops below 20 percent. Spreading the maturity of the hybrids can help to solve these problems, with early hybrids being planted first.

Storage facilities: The upper moisture limit for harvesting is around 30 percent. This limit is set by harvesting equipment. The lower limit for storage is about 25 percent, except in airtight containers. Lower-moisture corn may have excess spoilage when stored in ordinary farm silos. To obtain corn in the 25 to 30 percent moisture range, growers will need to plant and harvest hybrids of different maturities.

Plenty of hybrids are available to meet your needs. Not all salesmen, however, will understand your specific problems. The annual Iowa Corn Yield Test bulletin can help you in this respect. This publication will be available sometime in February from your county extension office. Here are some tips in using this bulletin:

Select a hybrid with below-average moisture content and low-average stalk lodging, root lodging and dropped ears. From the hybrids with these characteristics, select one with above-average yield. For a midseason variety, look in the district north of your farm; for an early hybrid, look two districts north.

The acreage of grain sorghum moved to a high of 300,000 acres in 1957 because of drought and corn acreage controls. It dropped back to about 65,000 acres in 1959. State average yields during this period have moved up from 45 bushels in 1957 to an estimated 57 bushels per acre in 1959.

Current yield and production research brings out the following points:

When corn yields average above 75 bushels, corn usually will outyield grain sorghum.

When conditions are unfavorable for corn—such as especially dry weather or late-season planting—grain sorghum is highly competitive.

Western and southern Iowa are more likely to see grain sorghum competing successfully than other parts of the state.

Before planting grain sorghum, be sure that harvesting, drying and storage facilities are available and suitable.

Several new commercial hybrids have become available since 1957. The yields of the new hybrids are 20-25 percent greater than the regular varieties. There are, however, no outstanding hybrids or varieties available for northern Iowa. A detailed report of the relative performance of the sorghum varieties and hybrids is available in each county extension office.

Soybeans

In choosing a soybean variety, it’s important to select one that uses the full growing season but reaches maturity before the average date of killing frost. The varieties suggested by areas will do this when planted at the normal dates.

Soybeans often are used as a replacement crop. If this need arises, there’s a wide selection of varieties which may be planted at later than normal dates and still mature in the remaining frost-free period. Yields from late planting decrease about 1 percent for each day after May 31. Write to the Agronomy Department at Iowa State for special suggestions.

Northern Iowa:

Chippewa—A high-yielding variety about 5 days earlier in maturity than Blackhawk but comparing favorably with it in all other characteristics.

Blackhawk—About 1 week earlier in maturity than Hawkeye; medium-tall, lodging resistant and high in yield.

Hawkeye—For southern and western counties of northern Iowa. High yield, tall and lodging resistant.

North-central Iowa:

Hawkeye—The most widely grown variety in the northern half of the state. It matures about 3 days earlier than Adams.

Ford—A new variety released in 1959. It’s best adapted in maturity from north-central to south-central Iowa. About 2 days earlier than Adams but outyields it by nearly 2.5 bushels per acre. Equal to Adams in plant height and slightly superior in lodging resistance.

South-central Iowa:

Hawkeye—See above.

Adams—High in yield and oil and good in lodging resistance. About 2 days earlier in maturity than Ford and 10 days earlier than Clark.

Ford—See above.

Shelby—Best adapted for maturity in south-central and southern Iowa. Matures 2 days later than Adams and has about the same lodging resistance and height. In the northern area of adaptation, Ford outyields Shelby; the reverse is true in the southern area.

Southern Iowa:

Adams, Ford and Shelby—See above.

Clark—A high-yielding variety, more than 1 week later in maturity than Ford and 2 to 3 bushels higher in yield; stands well.
Oat Varieties

The performance of the oat varieties that will be eligible for certification in 1960 is summarized in the table. Rusts and other foliages weren't a problem in 1959. Yellow dwarf (red leaf), however, was destructive in southeastern and northwestern Iowa. The Newton variety shows some resistance to this disease. But since it's necessary for a series of conditions to be “right” for this disease, it’s unlikely to cause damage in more than one year out of 10. (See also the plant disease and insect prospects in this issue for 1960.)

Barley Varieties

Most barley produced in Iowa is used as feed for livestock. Some varieties may bring premium prices as malting barley if care is taken in production and harvesting. The three varieties listed below have been satisfactory, based on yield trial summaries.

Liberty (malting type)—High yielding, plump-kerneled, smooth-awned variety. Moderately stiff straw and medium in maturity. Resistant to stem rust and mildew; susceptible to leaf rust, loose smut, spot blotch and scab.

Trail (malting type)—Similar to Kindred but much stiffer straw. A high-yielding, rough-awned, medium-late-maturing variety. Resistant to stem rust but susceptible to leaf rust, mildew, loose smut, spot blotch and scab.

Flax Varieties

Flax, like barley, is grown largely in northwestern Iowa. It’s a good companion crop for forage seedings unless weeds are a serious problem. The following varieties have given good performance in yield trials.

Arny—High-yielding, medium-late maturing, tall, stiff-strawed variety. Resistant to rust and wilt and tolerant to pasmo.

Bolley—Moderate yielding and medium-early maturing. Preferred for late seeding. Resistant to rust and wilt but susceptible to pasmo.

Marine—Moderate yielding and early maturing. Preferred for late seeding. Resistant to rust and wilt and tolerant to pasmo.

Redwood—High-yielding and mid-season in maturity. Resistant to rust and wilt but susceptible to pasmo.

Wheat Varieties

Winter wheat generally out-yields spring-sown varieties and has given the most consistent performance in southern and southwestern sections and along the Missouri River bottomlands.

Great strides have been made in the development and use of improved forage-crop varieties. Seed production of these improved varieties has become specialized—often far removed from the areas where the crop is used. It isn’t possible to identify varieties by seed characters. Hence, Iowa farmers are urged to plant certified seed of these new varieties to have greater assurance of varietal purity.

Alfalfa Varieties

The following varieties have proven their superiority in forage production, winterhardiness and disease resistance. Certified seed from mild-winter states is satisfactory since it must be produced from foundation stocks maintained in northern areas.

Vernal—High level of winterhardiness and resistance to bacterial wilt; outstanding in production of forage under both hay and grazing management and
is especially adapted for long-term stands in all sections of Iowa.

**Ranger**—A wilt-resistant, winterhardy variety, which has given excellent performance for hay and pasture use. Can be planted throughout Iowa for both short- and long-term stands.

**Buffalo**—Resistant to wilt and outstanding in forage yield. Often outyields Ranger.

**Atlantic**—A high-yielding, winterhardy variety which lacks resistance to wilt; should be used only for short-term stands.

**Other Varieties**—Of the older varieties, Ladak, Cossack, Grimm and Northern Common may be satisfactory for short-term stands, but certified seed often isn’t obtainable, and many lots (not certified) have shown lack of true- ness to variety in field trials. Nonhardy southern varieties may be used for green manure plowed down in the seeding year.

**Red Clover Varieties**

Although the present acreage planted to red clover is lower than alfalfa, this important legume is favored by many farmers, especially for short rotations in eastern Iowa.

**Kenland**—Resistant to southern anthracnose. Has shown superior performance in yield of forage.

**Pennsacota**—A variety of high productivity, approximately equal to Kenland under Iowa conditions.

**Dollar**—Resistant to northern anthracnose. Best adapted for use in northern Iowa.

**Common**—Seed of common strains grown for a number of generations in Iowa. Seed produced in other midwestern states and similar latitudes in Canada also is considered satisfactory.

**Ladino Clover**

Ladino clover is a larger, more productive type of white clover. Its greatest usefulness is in rotation pastures and in meadow mixtures. It’s especially suitable for hog and poultry pastures. Seed costs are low; adding only ½ to 1 pound of seed in legume mixtures gives a good stand of ladino. It doesn’t produce well where moisture is limiting, however.

**Sweetclover Varieties**

For many years sweetclover has been the leading crop for legume green manure in seedings with oats or other grains. Watch for weevil damage; weevil-resistant varieties aren’t available.

**Hubbom**—Annual white. Not as high in yields of nitrogen and organic matter as biennial types but may be plowed in the fall without danger of volunteer growth the following year.

**Madrid**—Biennial yellow. Produces excellent yields of nitrogen and organic matter in the first-year growth.

**Birdsfoot Trefoil**

Birdsfoot trefoil is a deep-rooted winterhardy perennial legume especially useful in permanent and long-rotation pastures. Seeding establishment often is slow, compared with alfalfa or red clover. It’s adapted to a wide range of soil conditions but isn’t particularly drouth resistant. Birdsfoot trefoil grows well in mixtures with Kentucky bluegrass and orchardgrass.

**Empire**—Semi-prostrate in growth habit and the most winterhardy of all varieties now available. Only variety that will survive continuous grazing.

**Bromegrass**

Bromegrass is a widely adapted, hardy grass for good soils. It does best when grown with a legume, especially alfalfa. But stands depleted of legumes can be stepped up considerably in seed and forage production by applying nitrogen fertilizer (60-80 pounds of nitrogen per acre).

Adapted varieties—all similar in performance—are:

**Fischer, Lincoln and Achenbach**—Widely grown southern types; tall, leafy and good seed producers under proper management.

**Southland**—A new variety similar in performance to the southern types. Has good spring recovery.

**Orchardgrass**

Orchardgrass is an adapted, vigorous-growing grass which is easy to establish. It’s best suited for pasture, in mixture with a legume, because of rapid recovery after grazing or mowing. It persists under a wide range of conditions and, with good management, is high in palatability and nutritive value.

**Potomac**—A new mid-early variety similar to common orchardgrass in performance and winterhardiness. Good in aftermath recovery and improved in resistance to leaf diseases.

**Common**—Seed from mid-Atlantic or southern Corn Belt states. Good in general performance and winterhardiness. Mid-early in heading.

**Sudangrass**

Because of its rapid, vigorous growth in hot, dry weather, sudangrass does well for summer pastures. It also has value as an emergency pasture or hay crop in adverse seasons.

**Piper**—Early, rapid in growth and recovery; disease resistant and high in yield; low in prussic acid content.

**Greenleaf**—Late, leafy and disease resistant with juicy stems and sweet forage. Satisfactory in yield.

**Forage Sorghums**

Several new forage sorghum hybrids are available. Some are as early as Axtell; others are as late or later than Atlas. Forage hybrids may or may not be superior in yield, and some are very susceptible to lodging. Care should be used in selecting a hybrid of suitable maturity.

Combine-type grain sorghums can be used for forage but generally yield only 50-70 percent as much as taller forage types.

**RS 301**—A hybrid, leafy, outstanding in yield and lodging resistance and about 1 week earlier than Atlas. RS 301 is a male sterile hybrid and produces no seed. All of the nutrients, therefore, are in the stalks and leaves. If seed is desired in the crop, a small amount (10-20 percent) of seed of a variety of similar maturity can be mixed with it at planting time to provide pollination and seed set.

**Axtell, Rox Orange and Wasconia Orange**—Good-yielding varieties, palatable and suitable for early planting (late May) in northern Iowa and later planting in central and southern Iowa.

**Atlas**—High-yielding, tall, lodging resistant, late variety for early planting (late May) in central and southern Iowa.

Additional and more detailed information on many of the crop varieties listed in this article are available from your county extension director.