Abstract: Organic grain and oilseed markets are growing, and organic grains can be successfully marketed at premium prices. This publication focuses on food grains, oilseeds, and pulses. A brief overview of feed grain markets and marketing is included. Organic grain marketing differs from conventional grain marketing in several key ways. Producers generally benefit from contracting a large portion of their acreage before planting the crop. Relationships with buyers should be cultivated early on and be maintained by meeting expectations consistently. Premium prices are generally for delivered products, and, depending on the market and the specific buyer, they may need to be cleaned and even bagged. Generally, meeting quality standards is essential. To achieve the best prices, growers need to understand and build relationships with buyers, find markets for most of the crops in the rotation, meet quality standards, be able to store the crop if necessary, and be able to contract most of their crop to reliable buyers.

Organic Food Grain, Oilseeds, and Pulses

Market Situation

Organic markets can be volatile, with periods of high demand and short supply for certain crops and periods of high supply and sluggish demand for others. However, some grain markets are quite stable. The demand for organic grains varies widely, depending on the type of grain. Prices for organic grains and oilseeds were about double the conventional prices from 1995 to 2003, and occasionally three times as high as conventional. A 2004 study of organic grain and food-grade soybean prices from 1995 to 2003 (1) found that 2003 average organic prices were greater than 2002 prices for major grains and...

Lynn Clarkson of Clarkson Grain Company (2) in Illinois says that prices in the organic marketplace can be difficult to determine because of nondisclosure practices. He suggests that farmers make four or five phone calls to get a feel for appropriate prices before selling their grain. Pricing in the organic grain market is very specific to the grain crop variety. Choosing varieties with distinct traits, including top quality, is one way to create market advantage.(3)

Premiums for some crops are falling, as more farmers get into organic production, but farmers who can ride out the transitional years still have opportunities to increase their incomes. Increased demand by food and feed manufacturers has helped to maintain organic prices for many crops, even as organic acreage increases. Clarkson says that foreign competition is creeping into the organic grain market. Several grain legumes are already coming into the U.S. at lower than domestic prices. Some buyers still prefer to buy domestic grain, however, and price premiums may hold up for some buyers, as long as the price difference between domestic and imported grain does not grow too large.

Food Grains
Rising consumer demand for organic pasta, cereal, and bread products signals a need for more organic flours and oils. Although smaller manufacturers historically dominated the organic foods industry, several leading grain-based food corporations have entered the organic market recently. ConAgra Foods, for example, has seen annual sales of its organic bread flour increase 10 to 15%. While this category has not grown as fast as other categories, slow and steady growth (about 28% annually) is expected to continue.(4)

Wheat
According to Nancy Matheson, NCAT specialist and producer and handler of organic grains in Montana, organic wheat prices are less volatile than prices for conventional wheat, and premiums for organic wheat have remained steady for several years, at about 50% more than conventional. Good export markets exist for many of the wheats, along with domestic markets, if the quality and variety meet market criteria. The market for organic hard-white wheat is now well developed and stable. While the market has grown, it is still a much smaller market than the market for the hard red wheats. Demand for organic hard-white wheat should parallel conventional demand.(5)
Organic food-grade corn and corn products such as corn syrup are seeing an increase in demand from food processors. Prices range from $4.50 to $8.00 a bushel. (6)

Oats

Prices for organic oats are about double those for conventional oats. (4) Oat prices began to rise in 2002 and 2003 and appear to have leveled off in a higher price range than before. Food grade oats have a small but significant niche, and with larger companies such as ConAgra getting into the organic oats market, new opportunities for oats producers may exist.

Other

Organic rice has seen a very steady, slow increase in demand. Markets for other food grains tend to be limited. While crop diversity is an important part of organic farming systems, it can be difficult to find markets for the grains that are less in demand. Establishing a relatively stable rotation allows farmers to plan marketing far ahead of time, rather than facing the question of what to plant every year. Crops such as buckwheat, rye, peas, and oats are important in crop rotations and as cover crops, but they may be difficult to sell in some areas, even without an organic premium. Some soybean buyers, recognizing this problem, are beginning to contract for some of the “other” crops in the rotation. Feed markets are another option for marketing these types of grains.
Oilseeds

Soybean
Due to high demand based on the perceived health benefits of soy, both organic and non-organic soy foods have seen an average annual increase in sales of 14.3% over the past 10 years. Once only used for tofu, soy is now found in hundreds of food products, and demand for organic soy is strong in both domestic and export markets. Organic soy prices tend to be quite variable.

Flax, sunflower, safflower
Other important organic oilseeds include flax, sunflower, and safflower, which are seeing increased demand as consumers learn more about the health benefits of these oils. Flax prices increased significantly beginning in 2003. Canola is in demand, but it can be risky to grow due to the prevalence of genetically modified canola in canola-producing regions.

Pulses
Organic dry bean prices tend to be volatile. There is a strong export market for organic dry beans. Pinto beans are the most important type of dry bean produced in the U.S. There are small but steady markets for other organic pulses, such as lentils, green peas, and field peas.

Organic Feed Grain Market Situation
Increasing interest in organic production of livestock has led to an increase in demand for organic feedstuffs. Organic meat and poultry represented the fastest growing organic category in 2003, with a 78% sales increase in 2004 from 2003. Manufacturers expect that category to grow at 30% over the next four years. Organic dairy has been one of the fastest growing organic categories for the past several years, and its successful introduction to mass markets means the category will only continue to grow. Because agricultural feed ingredients in the diets of certified livestock must be organically produced, continued growth in the retail market should increase demand for organic feed grains. It also provides a market for lower quality organic grains that fail to meet the quality standards demanded in other organic market segments.

You may be able to sell organic feed-grade grain directly to local organic livestock producers or to organic feed manufacturers, as well as to brokers and merchandisers. If you do sell directly to farmers or small companies, you do risk not
Farm storage may not be essential, but it is certainly a critical factor for successful marketing. Mike Pratt (see “Marketing Organic Grains, Oilseeds, and Pulses,” below) says his single best tip for organic farmers is to invest in storage facilities—“Buy a bin a year.” The organic market consists of many buyers with individual supply needs, from small to very significant quantities. Sometimes, even the largest buyers cannot take a whole year’s supply of a particular crop all at once, but may need a certain amount every month. If you can store it, you can make money by keeping up with the market and selling when shortages occur and the price rises (as long as you can maintain grain quality during storage). Remember that every day your grain is in storage costs you money, and try to set a date by which the buyer has to accept the grain or begin paying you for storage. An alternative can be to contract with a buyer who has storage set aside for specialty grains.

Always take and keep representative samples of every field of grain, and be prepared to provide samples to prospective and committed buyers. High quality-standards are a common feature of organic grain markets. Another advantage of storage is that you can send samples to buyers in advance of a sale. This avoids showing up at the processing plant with a load of grain that gets rejected because it failed to meet certain standards. You can also have stored grain tested at an independent lab for moisture, protein, mold, toxins, and foreign matter. Maintain quality by cleaning storage bins completely, vacuuming grain dust, removing spilled or moldy grain, plugging holes and cracks to exclude rodents, and keeping weeds around the bins mowed. For more information on organic control of insects in stored grain, see the ATTRA publication Stored Grain Pest Management.

Typically, prices for organic feed grains are about 50 to 100% above conventional prices.(11) Recently, increased feed demands across the country and unfavorable growing conditions have resulted in some shortages and high prices for organic grain and soybeans. In summer 2004, organic feed-grade soybean prices ranged from $19 to $21 per bushel (up from $18 per bushel in April), and organic soy meal prices ranged from $700 to $850 per ton.(9) Prices range from $3.25 to $4.00 per bushel for feed-grade organic corn.(6)

The high cost of organic soybeans and meal provides increased opportunities for producers of alternative sources of protein, such as feed peas. Current research is showing an emerging potential for grain vetch as a substitute source of protein comparable to soybeans.(12) Along with vetch, grain lupine—with the highest protein content of all the pulse crops (12)—is also being researched as a protein source for feed.

Marketing Organic Grains, Oilseeds, and Pulses
Marketing organically produced grains is different from conventional grain marketing. While the conventional grower can deposit a whole harvest at the elevator, organic production is usually contracted with a specific buyer ahead of planting. The marketing skills necessary for organic producers are often different from those for conventional producers.(10) Conventional grain producers can increase their returns by timing sales to take advantage of market fluctuations. Organic producers tend to get better returns by taking advantage of knowledge, experience, and relationships. Experienced producers know where markets are, know how to negotiate, and have established themselves as reliable suppliers through long-term relationships with buyers. Mike Pratt, former purchasing manager at the organic grain trading company American Health and Nutrition, says that the ability to meet qual-
ity standards and to store their organic crops are the main factors for prospective organic farmers to consider. (13)

In addition to developing relationships with buyers, farmers also need to develop good relationships with their bankers. The organic market is not as liquid as the conventional market. Organics often do not have a spot market in which farmers and bankers can immediately turn grain to cash (14), and bankers need to understand that they may not get proceeds from crops for up to a year or more in some cases. However, if there is an organic handling or processing facility nearby, there may be a spot market. For example, Matheson says, General Mills’ elevators and several smaller independent organic grain merchandisers in Montana offer producers the ability to sell their harvests directly at the elevator. While buyers such as General Mills can take large quantities, Matheson advises diversifying buyers if possible.

Finding Buyers
Producers interested in going organic should contact several buyers to get a feel for the market and find out more about what crops are in demand, quality standards, and pricing. Experts recommend taking the time to understand the buyer’s viewpoint, learning about the products that the grains go into, quality and other desired attributes, and so on. It can pay to talk to milling, baking, and other manufacturing associations, as well as producer associations, and build a marketing network with food industry contacts. (2)

Sales to Other Producers and Smaller Organic Companies
Other farmers and ranchers and small organic companies may offer marketing opportunities to organic grain producers. However, it is important to make sure that you will be paid after you make the sale. Some buyers of organic grain are so small that they can’t or don’t always pay the farmers they’re buying from. Fraud is unusual—more often, smaller companies may have too little cash-flow to pay their bills. If they get behind, they simply don’t have the cash to pay the farmers. Also, many do not know they are required to have a commodity dealer’s license—with the accompanying protection for payment. If you are a farmer selling organic grain—to a company or an individual—be sure that the buyer has a commodity dealer’s license in your state. Many individuals will not have a commodity dealer’s license, required only of those whose purchases directly from farmers exceed a certain dollar amount. For example, in Montana, anyone who buys $30,000 or more of grain per year from farmers must have a commodity dealer’s license. The licensees must post a bond or buy an insurance policy that will cover their unpaid bills to their sellers if the licensees can’t.

Considerations for Contract Production
Contracting with a trader or processor is often the only way, and sometimes the best way, to sell organic products or alternative crops that lack established markets. Contract production offers producers a way to manage risk. While producers on contract will not be able to benefit from favorable price changes, they are protected from unfavorable price changes. In many cases traders will also give growers advice on how to produce and harvest a top-quality organic crop. Clarkson advises growers to contract a signifi-
cant portion of their production before planting. Those contracts should be for acres of ground in production, not bushels of crop produced, to prevent shortfall on delivery at harvest time in a bad year.

Buyers look for farmers who are in the right location with the right equipment and infrastructure. Beyond these basics, buyers also prefer to deal with farmers who have a good attitude and are sensitive to client needs. Farmers benefit by building relationships with buyers as they compete for contracts. One farmer compares finding buyers to going on job interviews.(15)

Farmers are having more difficulty getting contracts to grow some of the specialty grains, such as blue corn. Clarkson says, “There is a definite limit to the ability of niche markets to absorb all the available supply. Open-market farm production tends to rapidly destroy the price advantages. Contract production tends to regulate supply to what the market can absorb and thus retains the premiums for longer than open-market production.”

Communication with buyers is critical for producers in determining what to plant, how to fit it into their rotation plan, and how to grow and harvest a crop that meets each buyer’s quality criteria. Understanding the standards and terms specified is vital. Grain cleaning and shipping charges are important factors when evaluating price and costs. Contracts may specify the producer as responsible for both, either one, or neither. For example, some prices are quoted FOB a destination point, and the producer must pay shipping and cleaning. Other buyers may quote a farm-gate price based on quantity after cleaning, but the buyer pays for cleaning and shipping. Experienced growers stress that cleaning and shipping are significant costs, and you must read the fine print to avoid unpleasant surprises.

Premium prices for organic grain are sometimes on a “cleaned and delivered” basis. Many organic feed buyers and certified organic elevators will buy uncleaned grain. Premium markets may demand a shipment to be 99.9% clean. In order to separate out that last small percentage of weed seeds, stones, and other impurities, up to 10% of the grain can be wasted (“dockage”). Producers should find out how dockage is handled and whether any grain will be credited back to the grower. Keep in mind that organic screenings are in high demand by livestock and feed producers. If you have your grain custom cleaned, and you want the screenings, you’ll need to request them ahead of time and reach an agreement on their per-unit value.

Both producer and buyer need to carefully consider all terms of the contract before signing. It is important to understand what happens if the commodity is below contract quality specifications and what the buyer’s rejection policy is. The producer, in particular, should learn about the legal aspects of contract production and know what his or her options for legal recourse are in case a buyer violates the agreement. Information on evaluating contracts is available at http://web.aces.uiuc.edu/value/contracts/contracts.htm.

Collaborative/Cooperative Marketing
The additional labor and management required to meet quality and delivery specifications, as well as investments in cleaning and storage equipment, represent possible marketing costs that could eat into premiums. Transportation costs may be substantial if certified cleaning plants or points of delivery are located far from the farm. The need to invest in storage facilities and the costs of transportation may make cooperative marketing more attractive. Marketing agencies-in-common (MACs) are organized by groups of cooperatives to coordinate marketing and other value-added services for the cooperatives. Each
individual cooperative retains control and ownership of its assets and is usually responsible for its own management. The MAC often provides marketing services that individual cooperatives cannot afford by themselves. The Organic Farmers’ Agency for Relationship Marketing (OFARM) is a marketing agency-in-common for organic grain grower cooperatives in 18 states and Ontario. OFARM’s target prices for several types of grain, along with conventional prices, can be seen at their Web site or at www.newfarm.org/opx/grains.htm (prices are FOB at the farm, not including storage and handling). Contact:

John Bobbe, Executive Director
920-825-1369
866-846-5522 (toll-free)
jbobbe@itol.com
www.ofarm.org

Preserving Organic Integrity

Harvest Considerations for the Split Operation

The producer or handler of a certified operation managing organic and non-organic components of one farm must document the measures taken to maintain organic integrity from seeding through harvest, transportation, and storage. Buffer zones, field isolation, adjusted planting dates, and varietal selection are common means of reducing contamination. To avoid contamination and preserve organic integrity, you may want to plant and harvest organic crops first, if maturity dates allow.

When equipment used for planting, harvesting, transporting, and storing conventional crops is used for organic crops, there is a high risk of commingling or physical contact between organic and conventional crops, if any of the conventional crop remains in the equipment. An Iowa State University study showed that there can be more than 60 pounds of grain, vegetative matter, and dirt left in a combine, even after the grain tank appeared to be emptied.(16)

While some equipment can be adequately cleaned by hand, other equipment such as gravity boxes, transportation units, and storage units may need to be cleaned with pressurized water or blown out with compressed air. Combines should have all trap doors opened and be run empty for 15 minutes or so. Sweep and use an air compressor or vacuum cleaner to remove leftover grain and contaminants, and shake out residues from the sieves. Before harvesting your organic crop, run three to five bushels of organic grains through the combine to purge leftover conventional grains (this grain cannot be sold as organic).(16)

If you own a combine, you can take your time and pay attention to details. This will ensure a high quality harvest with minimal damage to the grain. Custom harvesters often cannot take the time necessary to assure such thorough cleanout measures. In addition, they are often not familiar with specialty crops such as spelt, food-grade soybeans, buckwheat, or flax. If you do hire custom operators, it may be necessary to pay them to be meticulous enough to clean their harvesters completely to avoid contamination, and to set the machine properly.

Any hauling vehicle that includes augers should be cleaned thoroughly. Grain receiving pits, augers or conveyors, elevator legs, dryers, and bins are all possible sites of mixing. Clean in and around these parts of the system to minimize mixing. Run some organic grain at maximum capacity through the system to clean out conventional grain. Cleanout logs should be kept up to date for all combines, trucks, and farm and cleaning equipment that are used for both conventional and organic grain. Be sure to get a clean-truck affidavit from custom haulers.

Post-Harvest Handling and Processing

If you process or perform significant value-added operations, you may need to be certified as an organic handler, in addition to your organic production certification. According to the NOP Final Rule (205.2) “handle” is defined as follows.
To sell, process, or package agricultural crops, except such term shall not include final retailers of agricultural products that do not process agricultural products.

A “handling operation” is defined as

Any operation or portion of an operation (except final retailers of agricultural products that do not process agricultural products) that receives or otherwise acquires agricultural products and processes, packages, or stores such products.

Check with your certifier to find out whether your post-harvest activities qualify you as a handler. If you do qualify as a handler, you must get an organic handler certificate. Handlers of organic grain must ensure organic identity and prevent contamination with prohibited materials. Bin tags, labels, scale tickets, and lot control documents must clearly identify the product as organic. Handlers of organic grain and grain products must demonstrate that they have procedures in place to ensure the identity and segregation of the organic products at all times.

For more information on documentation needs and the certification process, see the ATTRA publications Organic Field Crops Documentation Forms, NCAT’s Organic Crops Workbook, and the National Organic Program Compliance Checklist for Producers.

In addition to offering a reliable supply, there are options to add value to your crop by cleaning, packaging, labeling, and/or palletizing your product and arranging delivery logistics for your buyer. Buyers vary in the degree of cleaning and conditioning they require. While many buyers do not want to have to clean the crop, others prefer to do their own cleaning, using their own engineered gene. The two most common methods used to detect GMOs are the enzyme-linked immunosorbent assay (ELISA) and polymerase chain reaction (PCR). ELISA, according to Dean Layton of Envirologix, is recommended for raw corn and soy, while PCR is better for more-processed foods. Very generally, strip testing is often used as an initial screen with PCR testing to verify presence of GMOs, since strip testing is cheap and fast while PCR is expensive.

While there are moves to standardize the testing methods, currently the best advice to growers is to choose testing methods and labs with care. Buyers must have confidence in your testing program, and most will let you know what tests are acceptable. Since 100% organic is impossible to guarantee among crop species that include GM varieties (because of widespread GMO contamination and testing limits), buyer allowances for 0.1% to 5% contamination are typical. However, buyer requirements for 99% purity will require more stringent testing than 95% purity.

GMO testing equipment is offered by Genetic ID, Inc., Central Testing, and Envirologix, among others. Several testing laboratories are listed in the Resources section of this publication.
equipment. Clarkson says that “few if any farmers could support the machinery array we think is needed to present excellent material to final processors of human foods. Rotary screens or auger screens may do more seed coat damage than we can accept.” If pre-cleaning is required to meet quality standards, weed seeds, green material, and other trash must be removed before storage.

Adding value also adds costs. Depending on the type of activity, the producer may need to make considerable investments in equipment and time. If interested in doing his or her own cleaning and bagging to sell directly to the end user, for example, the farmer may need to purchase equipment such as small cleaners, fanning mills, and a gravity table. Pratt highly recommends running the grain over a gravity table to assist in removal of small stones, glass, and similar trash. He emphasizes that the trader (or the grower, if direct marketing) is liable for any claims related to foreign matter in the crop—for example, milling machinery damaged by stones in the grain. Product liability insurance will be a must. On-farm or cooperative grain processing, either for human or animal consumption, is another marketing option. For more information, request the ATTRA publication Grain Processing: Adding Value to Farm Products.

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**References**


Clarkson Grain Company, Inc.
320 East South Street
P.O. Box 80
Cerro Gordo, IL 61818-0080
800-252-1638
217-763-2861
cgci@novanet1.com
www.clarksongrain.com


www.newfarm.org/depts/talking_shop/0403/marketing_ops.shtml


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www.aces.uiuc.edu/value/factsheets/corn/fact-organic-corn.htm


www.agmrc.org/soy/profiles/organicsoyprofile.pdf

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www.ers.usda.gov/Briefing/DryBeans/

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**Long grain rice. Photo by Keith Weller, USDA ARS**

    www.ext.nodak.edu/extpubs/ecguides.htm


    American Health & Nutrition
    3990 Varsity Dr.
    Ann Arbor, MI 48108
    734-677-5570
    734-677-5572 or 734-677-5574 FAX
    alm@organictrading.com
    www.organictrading.com


    NewFarm.org.

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Further Resources

Information
The Illinois Specialty Farm Products project provides information on contract evaluation for specialty grains, strategic planning, specialty corn and soybean technology, specialty corn and soybean markets, and more. They have publications on organic food-grade soybeans and organic corn that include recommended management practices and sample partial budget analyses. They also maintain lists of buyers for the different crops. This information is available at their Web site: www.aces.uiuc.edu/value/

For those without Internet access, contact:

Burton E. Swanson
Project Director
Department of Agricultural and Consumer Economics
1301 West Gregory Drive
Urbana, IL 61801
217-244-6978
217-333-5835 FAX
swansonb@uiuc.edu

North Dakota Cooperative Extension has some very good budgets and planning information for a variety of organic field crops online at: www.ext.nodak.edu/extpubs/ecguides.htm

For those without Internet access, contact:

Distribution Center, NDSU Extension Service
Morrill Hall, P.O. Box 5655
North Dakota State University
Fargo, ND 58105-5655
701-231-7882
701-231-7044 FAX
dctr@ndsuext.nodak.edu

NC+ Organics is a supplier of organic row-crop seed and offers some helpful information on growing and marketing organic grains in their newsletter and their online forum at http://ncorganics.com/index.html. If you don’t have Internet access, contact:

NC+ Organics
207 18th Street N.
Grand Junction, IA 50107
800-370-7979

Organic Grain Dealers
Following is a list of some organic grain buyers. This list is by no means complete, but should serve as a starting point in locating buyers.

Ag Finder has merged into West Plains Grain (listed below).
Buyers in the Upper Midwest are listed on the Minnesota Department of Agriculture’s Web site. www.mda.state.mn.us/esap/organic/orgbuyers.pdf

Buyers for organic corn and soybeans are listed at the Illinois Specialty Farm Products Web site. www.aces.uiuc.edu/value

More companies and cooperatives dealing in organic grains for food and feed can be found in the Organic Trade Association’s Online Directory. www.ota.com

For more information on finding buyers, including print directories for those without Internet access, request ATTRA’s publication Organic Marketing Resources.

GMO Test Kit Manufacturers

Envirologix
55 Industrial Way
Portland, ME 04103
207-797-0300
www.envirologix.com

Neogen Corporation
620 Lesher Place
Lansing, MI 48912
517-372-9200
517-372-0108 FAX
neogen-info@neogen.com
www.neogen.com

Strategic Diagnostics, Inc.
111 Pencader Drive
Newark, DE 19702-3322
302-456-6789
www.sdix.com

GMO Testing Laboratories
Biogenetic Services, Inc.
801 32nd Ave.
Brookings, SD 57006
605-697-8500 / 800-423-4163
605-697-8507 FAX
info@biogeneticservices.com
www.biogeneticservices.com

California Seed & Plant Lab, Inc.
7877 Pleasant Grove Rd
Elverta, CA 95626
916-655-1581
916-655-1582 FAX
Randhawa@calspl.com
www.calspl.com

CII Laboratory Services
10835 Ambassador Drive
Kansas City, MO 64153
816-891-7337
816-891-7450 FAX
ciisvc@ciilab.com
www.ciilab.com (also available in Spanish)

Dupont Qualicon
Bedford Building
3531 Silverside Road
Wilmington, DE 19810
800-863-6842
302-695-5301 FAX
info@qualicon.com
www.qualicon.com

Genetic ID, Inc.
1760 Observatory Drive
Fairfield, IA 52556
515-472-9979
www.genetic-id.com

Mid-West Seed Services, Inc.
236 32nd Avenue
Brookings, SD 57006
605-692-7611
605-692-7617 FAX
timg@mwseed.com
www.mwseed.com

GeneScan USA
2315 N. Causeway Blvd., Suite 200
Metairie, LA 70001
504-297-4330
866-535-2730 toll-free
504-297-4335 FAX
http://www.gmotesting.com
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Marketing, Business, and Risk Management
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NCAT Agriculture Specialist
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