

# Row Crop Harvesting Meeting Kit



## WHAT'S AT STAKE

Most row crops are "annual" food and fiber plants that can be mechanically planted, irrigated, fertilized, and harvested every year. Annual, in this case, means that these plants have a fairly short life cycle – usually, less than or equal to one year. They need to be replanted every year in order to remain productive, and therefore a full row crop "growing season" consists of all activities related to planting, cultivating, and harvesting the crops as well as re-incorporating the plant residue after harvest back into the soil. There are examples of row crops in the US, but the significant ones are cereal grains like corn, wheat, barley, and rice, along with soybeans, hay, and cotton.

## WHAT'S THE DANGER

### PROBLEMS AND POTENTIAL IN ROW CROP FARMING

Working on a farm is hard. A day's work typically involves hard labor for long hours in conditions that can be less than ideal. Machines and other advances have made some jobs on the farm easier, but modern technologies and techniques come with their own hazards, problems and potential.

#### Labor And Material Costs

The majority of row crop costs can be broken down into two categories: labor and material costs. Automation has greatly reduced labor costs for row crops, making labor a relatively small farming operations expense.

Compared to labor, material cost – which can include various forms of fertilizer, pesticides, land, irrigation, and seeds – is the source of most farmers' headaches.

#### Cover Cropping

Cover crops can offer a number of benefits to a cropping system including increased biodiversity, crop/livestock integration, erosion control, or water management.

Cover cropping is often considered to be a fall activity. Following wheat, barley, or another short season crop, a cover crop is planted which will terminate when at freeze-up later in the fall. This is often a 2-3-month window of "fallow" time for a field, making it a convenient option for cover crops.

#### Row Crop Harvesting Game Plan

Once you choose to start your own small row crop farm, you need to determine the equipment needed to prepare the fields, fertilize, control pests, water, and harvest. It's likely a tractor is at the top of the list. A general-purpose tractor is designed to farm row crops and offers useful features for that purpose.

## HOW TO PROTECT YOURSELF

**General tips for finding quality equipment for row crop farm:**

- When choosing what to buy, review classified ads and visit area dealers.
- Talk to farming neighbors about their tractors.
- Ask about the make, model, and size of their various tractors, as well as how they perform.
- Ask about attachments to learn which ones are must-haves and which ones aren't as useful as they thought they'd be. What didn't they buy that they wish they had.

**Small Row Crop Equipment.** Once the crop is in, a spring tine cultivator can be useful in managing weeds. The flexible steel tines maneuver over and around rocks and soil clumps. Use a grader with a steel blade to smooth uneven land and grade contours to direct water runoff.

**Getting Around the Farm.** Most farmers rely on a sturdy pick-up truck to haul big farm supplies and/or pull trailers. In addition, a bed cap keeps items in the truck bed clean and dry. For quick trips around the farm property, a golf cart can be a good investment. Other farmers choose all terrain vehicles (ATVs). ATVs are more maneuverable than a golf cart and come in four-wheel and three-wheel models. Because of instability, though, the three-wheel models are not recommended for agricultural use.

### HANDLING EVERYDAY TASKS

- Lightweight handcarts easily move things around the farm.
- For fencing installation, buy a fence post driver to pound the posts into the ground. A pair of fence pliers can also be very handy tool to have if you need it.
- A variety of electric power equipment are needed to successfully run a farm. Every farmer will have his favorite brand or models of drills, saws, and other equipment. As for hand tools, toolbox standards include pliers, a socket and driver set, adjustable wrenches, claw hammer, and regular and screwdrivers in a variety of sizes.

**Safety Equipment.** Regularly inspect every piece of equipment. Never operate a machine that's damaged or not working properly. Follow the manufacturer's maintenance directions. Hire a qualified mechanic or other expert when the work is beyond your capability.

**Farm Financing.** Be realistic in determining how much income you expect the farm to generate. Take into account your skills, available time and return on the crops that are to be grown. Factors impacting the eventual monetary return are determined by farm's efficiency, weather, and agricultural market shifts. Choose crops with low financial risk and you'll likely earn little income. Crops with potentially high-profit margins come with higher risk levels.

**Soil, Water and Weather.** The better the farm's soil, the more row crop options you have. You can identify your farms' specific soil types using a county soil map. The farm's climate zone and related factors such as sun exposure, rainfall amounts and

patterns, air movement and frost also factor into successful crop growth.

Water rights associated with your property determine whether your farm may access water and, if so, from where. Discuss your water rights and agricultural restrictions with the local water rights authority. **Once the irrigation Sources Are Confirmed, Test the Salt Content, Ph and Other Minerals In It. They Impact the Water's Suitability for Irrigation.**

**Growing Row Crops.** Field corn, wheat, rye, and soybeans are common row crops for small farms. Other row crops include peanuts, cotton, tobacco, and sugar cane. Each crop has specific soil, water, and pest control requirements, so research the alternatives thoroughly to determine which will thrive on your land. Crop rotation planning is critical when developing a row crop strategy as well.

Look into the number of acres needed to produce each crop most economically. Make the most of existing acreage and equipment by choosing crops that can be grown with what you already have. As you become more adept, add more of that crop or others with similar growing requirements to increase efficiency.

Growing a variety of row crops can minimize the impact of weather or seasonal agricultural market prices. However, ensure the diversification doesn't require additional equipment that's costly and labor skills that aren't readily available or affordable.

## **FINAL WORD**

A row crop is a crop that can be planted in rows wide enough to allow it to be tilled or otherwise cultivated by agricultural machinery, machinery tailored for the seasonal activities of row crops.