CCX 9000 COVER CROP SEEDER



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Invest in Quality®

IMPROVING SOIL HEALTH THROUGH **COVER CROPS**

COVER CROPPING CHALLENGES

Cover crops can offer a variety of benefits such as sequestering nutrients, limiting soil erosion, improving soil structure and inhibiting weed emergence. However finding the time to plant a cover crop right after harvest can be a challenge, and an extra pass over the fields is generally undesirable.

THE KUHN KRAUSE SOLUTION

The KUHN Krause CCX 9000 series cover crop seeder is designed to be used in conjunction with the KUHN Krause Excelerator[®]. This gives you the opportunity to seed a cover crop whilst simultaneously using a vertical tillage operation to manage residue and prepare it for break-down over winter.

CCX 9000 BENEFITS

The CCX 9000 uses an electric drive metering unit and includes forward speed compensation as standard to ensure that seed rate remains constant regardless of variations in forward speed. Seed rate can also be adjusted on the go at the touch of a button. The Quantron S-2 terminal allows the operator to monitor all major functions of the seeder and be alerted immediately should any issue arise. At the rear of the machine, seed is placed between the Star Wheels and reel to be certain of soil cover; seed depth adjustment is possible by varying the angle of the seed diffusers.



POST HARVEST

SEEDING

Select cover crop varieties carefully to ensure they respond as expected in weather conditions post harvest. For example, a tillage radish will generally need 30 to 45 days growing time

SEQUESTERING NUTRIENTS

Cover crops can be used to absorb and lock up nutrients present in the soil and release them back in spring.

WINTER OVERWINTERING

Cover crops need to be chosen in accordance with climatic conditions. If a winter kill is desired, ensure that consecutive nights at sufficiently low enough temperatures are likely to avoid relying on chemical burn down

SPRING **WEED CONTROL**

Broadleaf cover crops will leave a heavy residue on the soil surface when they die which can help suppress weed growth and reduce the need for further chemical use

WATER MANAGEMENT

As the cover crop decays, channels from larger roots promote drainage, while voids left by smaller roots can help the soil retain moisture.

NUTRIENT RELEASE

As soil temperatures rise in Spring, the nutrients sequestered by the cover crop will be released back to be available to the following cash crop

WHY COVER CROP?

WEED CONTROL

Weeds struggle to grow under the canopy of a growing cover crop or the mat of one which has been killed off.

SOIL EROSION

A soil left bare over the winter is susceptible to erosion from wind or water. A cover crop can help mitigate these effects by breaking the fall of raindrops and providing a wind break.

SOIL STRUCTURE

A cover crop can help improve soil structure and assist drainage and moisture retention. Deep rooting cover crops can help to loosen soil. When the cover crop is killed off, the roots die leading to voids in the soil where moisture can be stored through capillary action and excess water will drain.

SEQUESTERING NUTRIENTS

A growing cash crop will not normally use all nutrients available in the soil and so there is a surplus following harvest. The associated environmental concerns of nutrient (such as nitrogen) leaching over the winter period, combined with the financial outlay of replacing this loss, makes a nutrient sequestering cover crop attractive to many farmers.

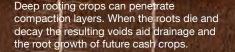


aggressive tap roots can be used to improve soil structure



Nutrients present in the cover crop root zone can

be sequestered. A tap root will allow nutrients to be collected from deeper in the soil profile, whereas a shallower more fibrous root structure will collect nutrients from a wider, but shallower zone.



Larger root channels promote drainage, whereas smaller voids from fibrous roots allow moisture retention through capillary action. Roots from the following cash crop may also use the old root channels to find an easy path through the soil

*Illustration courtesy of La Crosse Seed (lacrosseseed.com)





QUANTRON S-2

The Quantron S-2 terminal allows the operator to control and monitor all aspects of the CCX 9000 from the tractor cab.

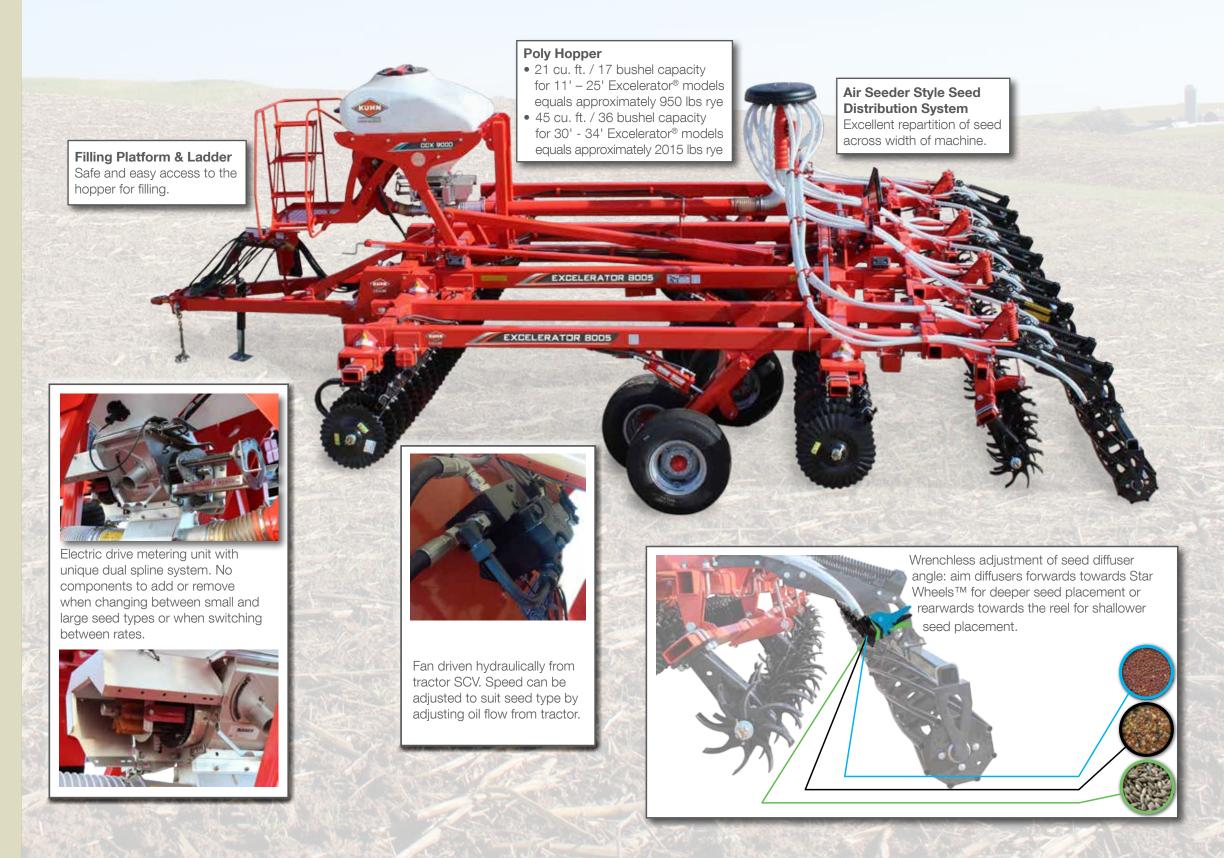
- Use an electronic speed signal from tractor radar, GPS or implement mounted wheel speed sensor to ensure consistent seed rate regardless of forward speed
- Quick and easy calibration process to ensure highly accurate seed rates
- Seed rate can be varied up or down "on the fly"
- Sensors monitor metering unit and fan speed to alert the operator to any malfunction
- A hopper level sensor notifies the operator when seed level is low
- Individual acre meters allow area worked to be recorded for up to 200 different fields
- Work with imperial or metric units
- Option to work in lbs / acre or seeds per acre

CCX 9000 COVER CROP SEEDER

in brief

Models	Hopper Capacity (cu. ft.)	Available for Excelerator Models		
CCX 9000-21	21	11' to 25'		
CCX 9000-45	45	30' to 34'		

CCX 9000 COVER CROP SEEDER in depth



ADDITIONAL FEATURES



CALIBRATION

The Quantron S-2 terminal guides the operator through the calibration process, and metering unit opening according to the seed calibration door and into the seed collection is completed in minutes. Simply enter the seed type, target rate and forward speed. The Quantron S-2 provides the setting for the metering unit and indicates whether the small seed splines are neccesary or not. The Quantron S-2 will indicate the maximum and minimum seed rates and forward speed possible with the given metering unit setting. Up to 60 sets of calibration data can be saved for future reference.



METERING UNIT ADJUSTMENT

The Quantron S-2 indicates the required type, rate and forward speed entered. The metering unit is then adjusted using the read scale.



SEED COLLECTION

During calibration, seed is metered through the bag supplied with the machine. The calibration door is opened and closed without using any handle and the setting shown on the easy to wrenches and is equipped with a sensor to prevent the operator from beginning seeding without having first closed it.



WEIGHT TEST

The quantity of seed collected is weighed and the weight is entered into the Quantron S-2. The system then provides the operator the final calibration setting.



SEED SPLINES

Small seed splines are used to reduce the volume of the metering unit when working with the metering unit automatically as the small seeds at low rates. They are engaged or disengaged without adding or removing any components from the metering unit, and the Quantron S-2 indicates their requirement during the calibration process.



IMPLEMENT SWITCH

The implement switch stops and starts Excelerator® is lifted in and out of work.



Technical

Specifications						
	CCX 9000-21	CCX 9000-45				
Overall Length	4'10" / 1.5 m	5'3" / 1.6 m				
Overall Height	4'9" / 1.4 m	5'4" / 1.6 m				
Weight (Empty, without Adaptation)	309 lb / 140 kg	422 lb / 191 kg				
Hopper Capacity	17 bu. / 21 cu. ft. / 600 L	36 bu. / 45 cu. ft. / 1274 L				
Blower Rotation Frequency	2300 - 4300 RPM	2300 - 4300 RPM				
Metering Unit	Volumetric metering unit with elec	Volumetric metering unit with electric drive				
Small Seed Splines	Standard	Standard				
Speed Signal	From tractor (standard) or using tractor wheel s	From tractor (standard) or using tractor wheel speed sensor (option)				
Agitator Shaft	Standard: Engaged/disengaged witho	Standard: Engaged/disengaged without wrenches				
Control Terminal	Quantron S-2 with 5.5" color s	Quantron S-2 with 5.5" color screen				
Units Used	User defined: Imperial or Me	User defined: Imperial or Metric				
In-Cab Application Rate Adjustment	Standard: Rate can be adjusted to +/- 99% of	Standard: Rate can be adjusted to +/- 99% of target rate on the fly				
Automatic Start/Stop	Standard	Standard				
Calibration Assistant	Standard	Standard				
Area Meter	Standard	Standard				
Filling Platform and Access Ladder	Standard	Standard				

EXCELERATOR® Model	8005-11	8000-14 / 8005-14	8000-20 / 8005-20	8000-25 / 8005-25	8000-30 / 8005-30	8005 - 34
Number of Diffusers	9	12	16	20	24	24
Transport Width with CCX 9000	12'9" / 3.8 m	15'3" / 4.7 m	12'4" / 3.75 m	13'2" / 4 m	15'3" / 4.6 m	18' / 5.5 m
Transport Height with CCX 9000	10' / 3 m	10' / 3 m	10'9" / 3.2 m	12'11" / 3.9 m	13'6" / 4.1 m	14'9" / 4.5 m

PRODUCT SYSTEMS

PRODUCT SYSTEMS

Post-Harvest

Harvest / CCX 9000

4830 In-Line Ripper / CCX 9000

CCX 9000 / Interceptor™ 8050

CCX 9000 / 5200 NT Grain Drill









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Your KUHN Krause dealer

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