

Fine-Tuning Your Combine for a Better No-Till Harvest

Marion Calmer



Marion Calmer

- 1975- Started Farming w/10 gilts & 80 acres
- 1985- Started doing independent on-farm research
- 1988- Started No-Tilling
- 1995- 1st Patentable Invention (15 Inch Corn Head)
- 2000- Founded Calmer Corn Heads, Inc.
- Holds 93 US & International Patents







FARM PROGRESS SHOW 2025

AUGUST 26–28, 2025
DECATUR, ILLINOIS







SAMSUNG







DEMCO

9120 AFS

CASE IH
AXIAL-FLOW

John Deere

5680

JOHN DEERE

JOHN DEERE

CASE IH 4412F 30

CASE IH

MAURER

Soybean Harvest

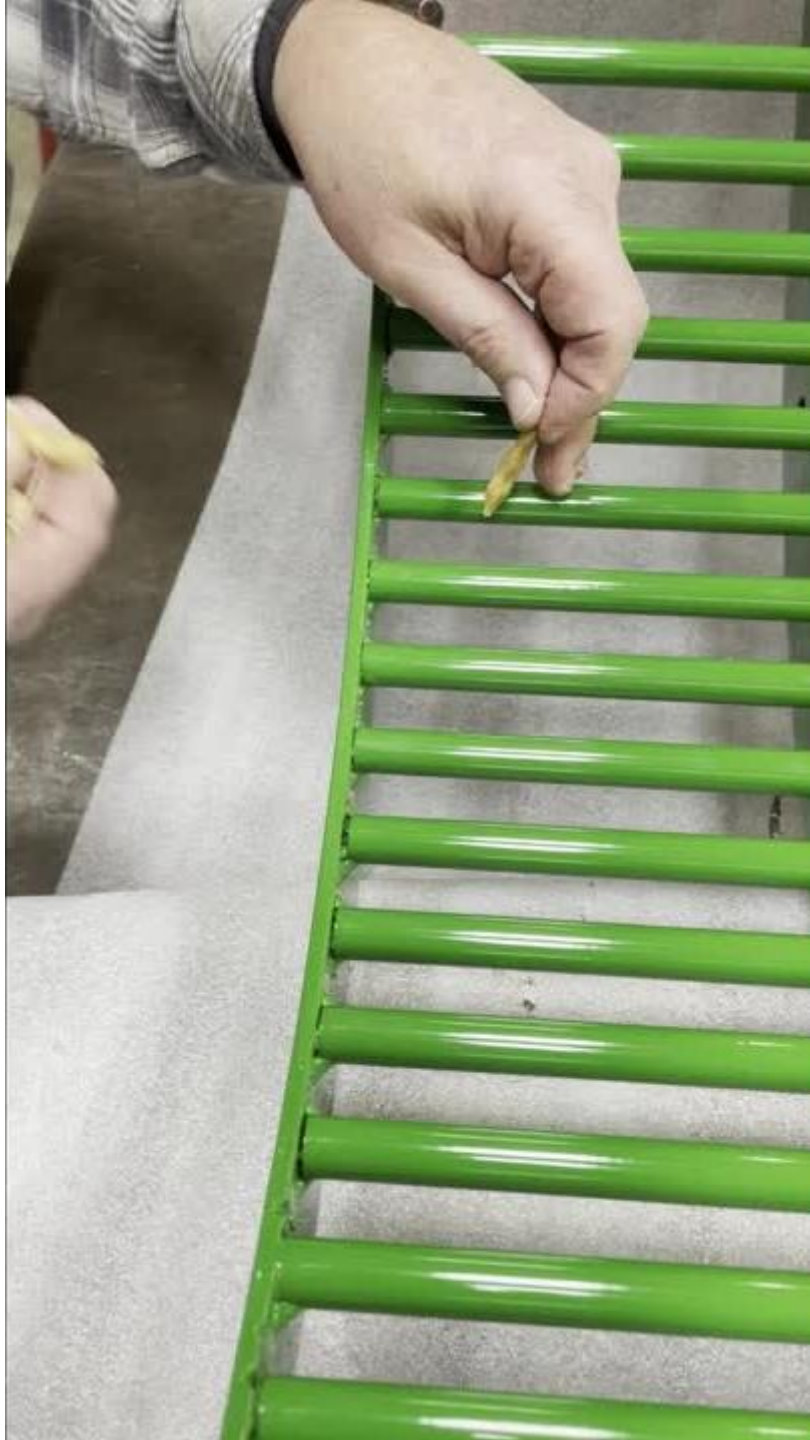
1. Green pods are a **threshing** problem, not a separating problem
2. Cover plates improve threshing power (grain on grain)
3. Concave Inserts – reduce stems from unnecessarily falling out of rotor onto sieve
4. Spreading residue



3"







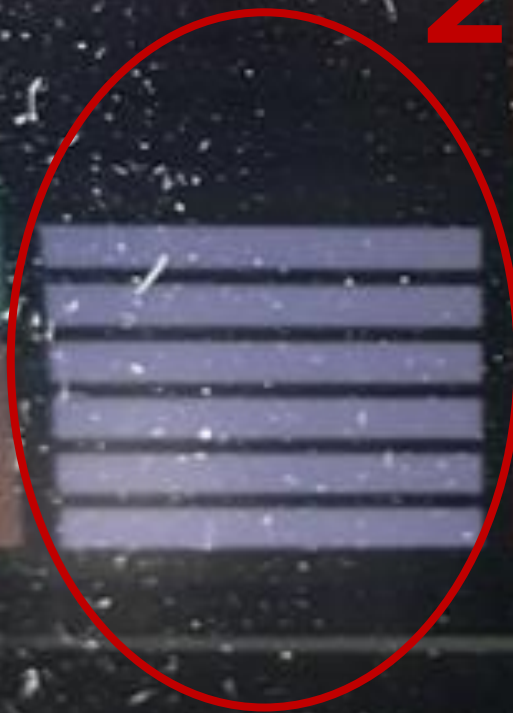
Homemade Cover Plate

NNTC Networking



Hulls / Stems in Sample









Shoup
Small Grain
Insert Kit
Part #SH94308

\$799



JOHN DEERE

Combine - Main

9
20
7

8.3 %

143  bu/ac

Soybeans

600 n/min

7

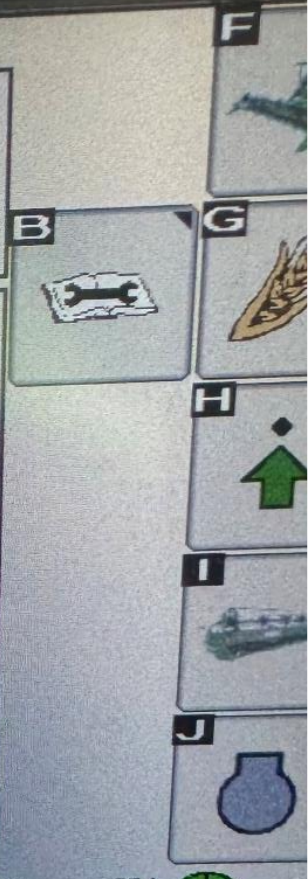


8

5

1150 n/min

F
B
G
H
I
J



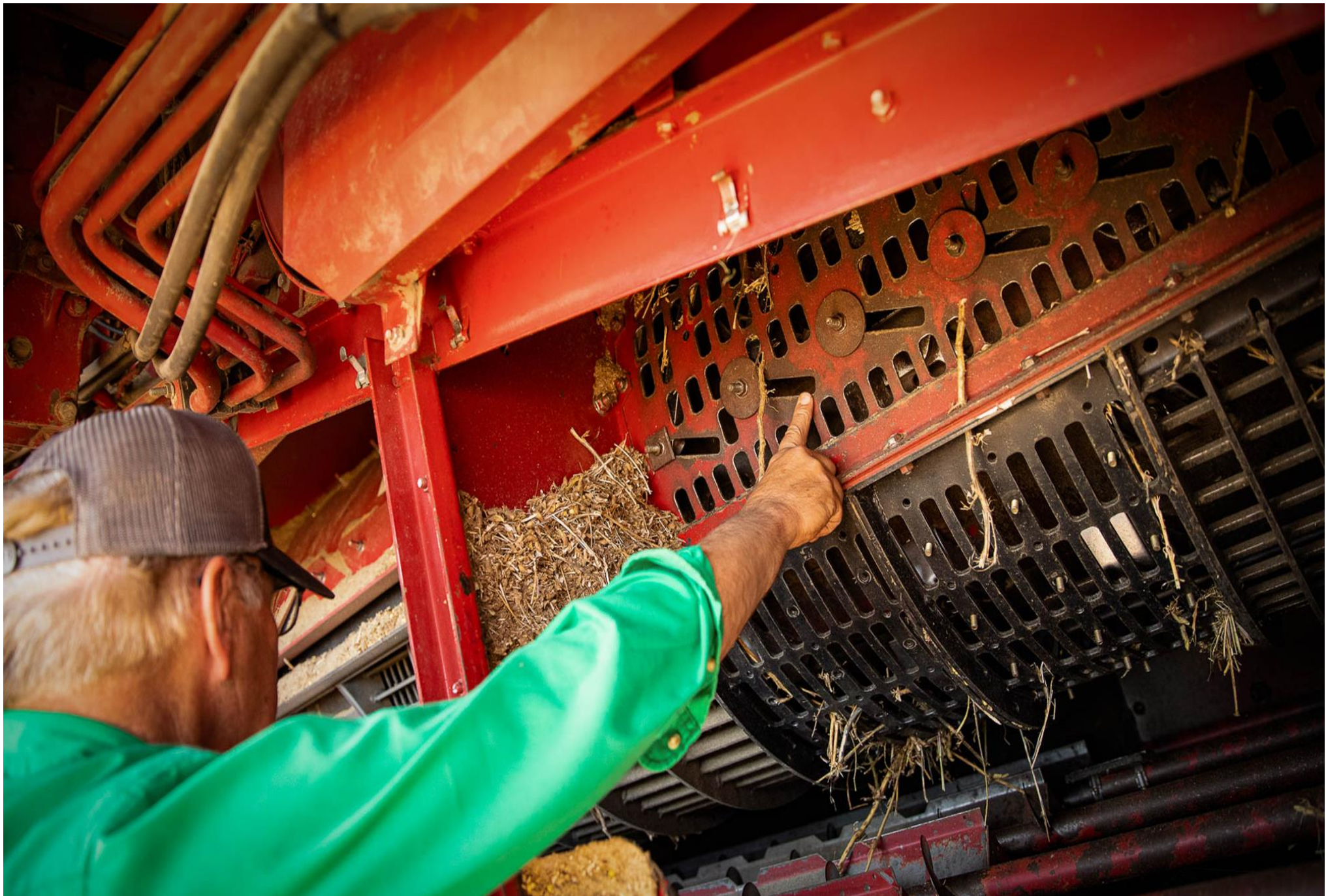
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30 SF 1









Problem

Overloaded
Chaffer

Solution

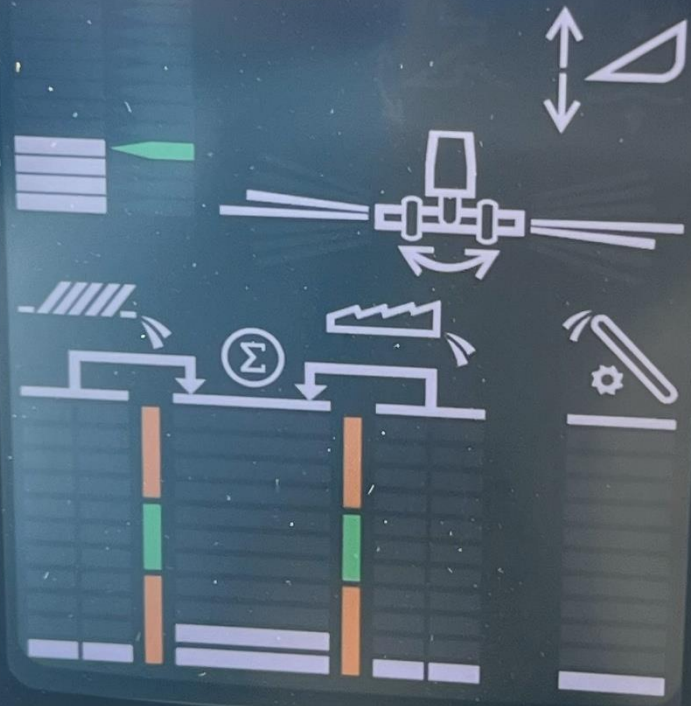
Normal
Chaffer

Clean Soybean Sample



2.5

2.3





**Start Soybean
Harvest on the
Downwind
Side of Field**



Combine Soybean Harvesting

Problems

- Pods in the sample & high tailings
- Chaff & straw in the sample
- Sieve loss

Solutions

- Cover plates
- MOG limiting inserts
- Slotted grates for Case IH combines

Corn Harvest

- 1.Stripper plate settings are relative to population
- 2.Stalk chop
- 3.Concaves with wide gaps between bars
- 4.Sieve settings

1974



17,000

2013



40,000











20° Down Corn

25° Standing Corn











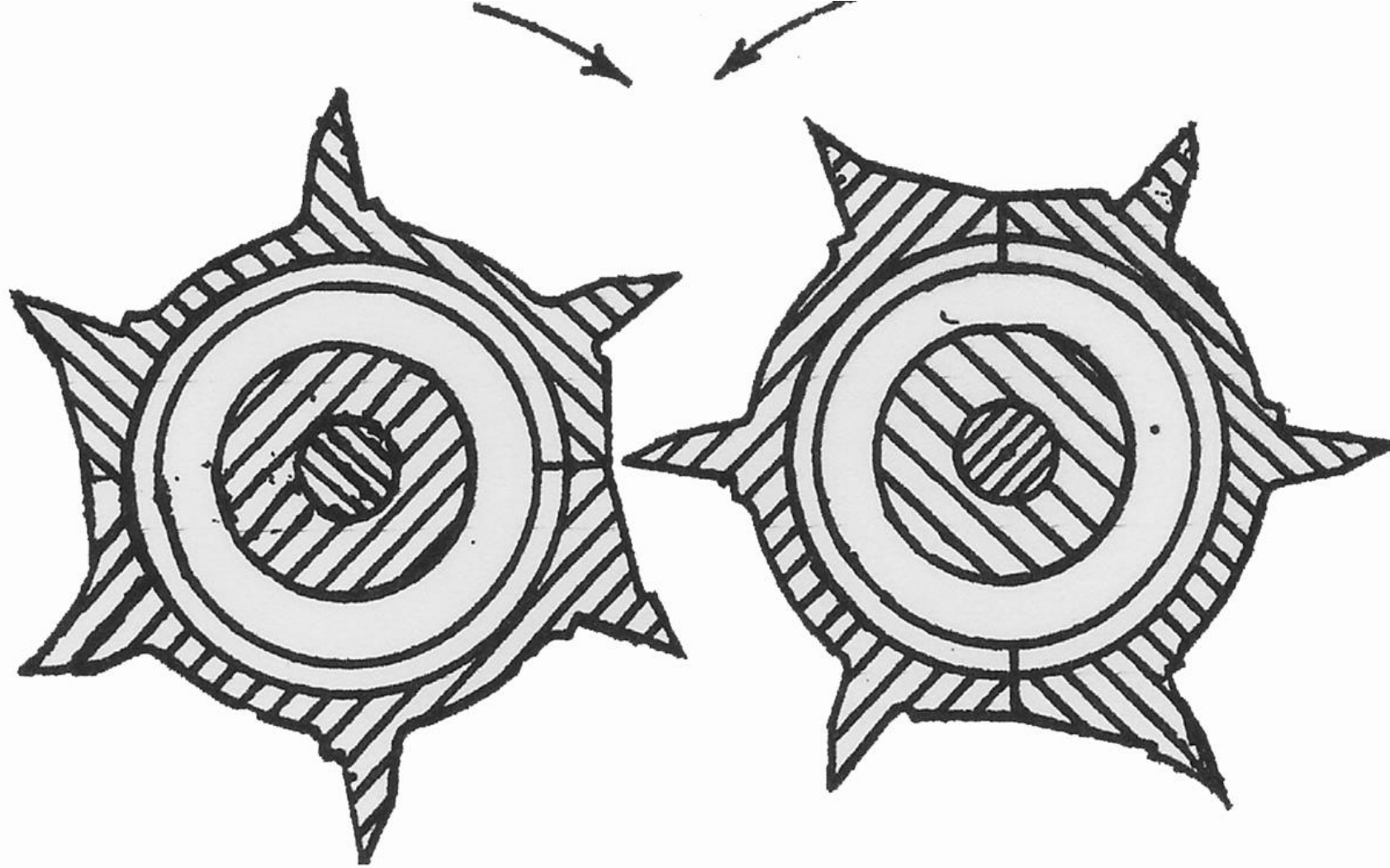


NNTC Networking

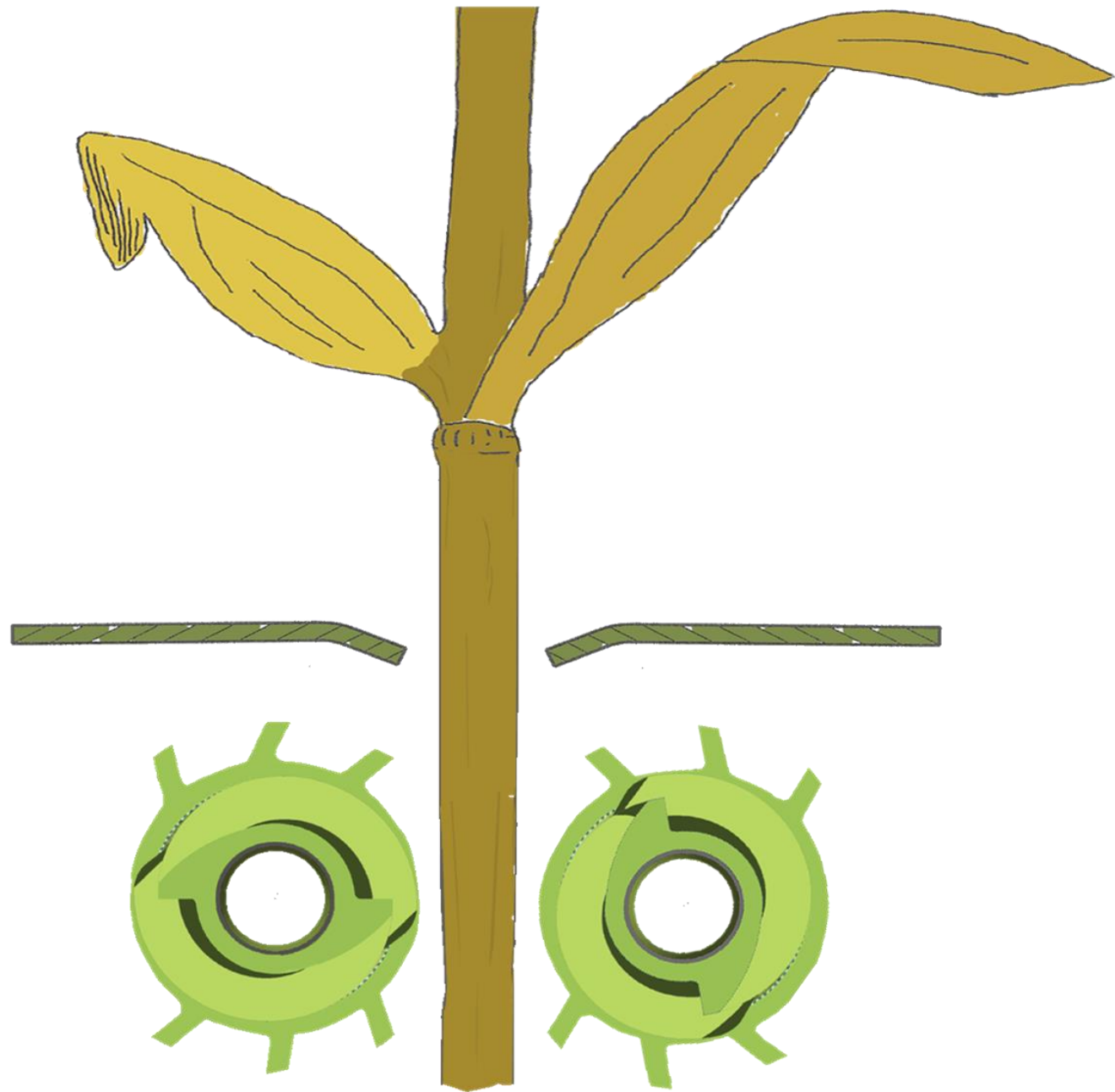




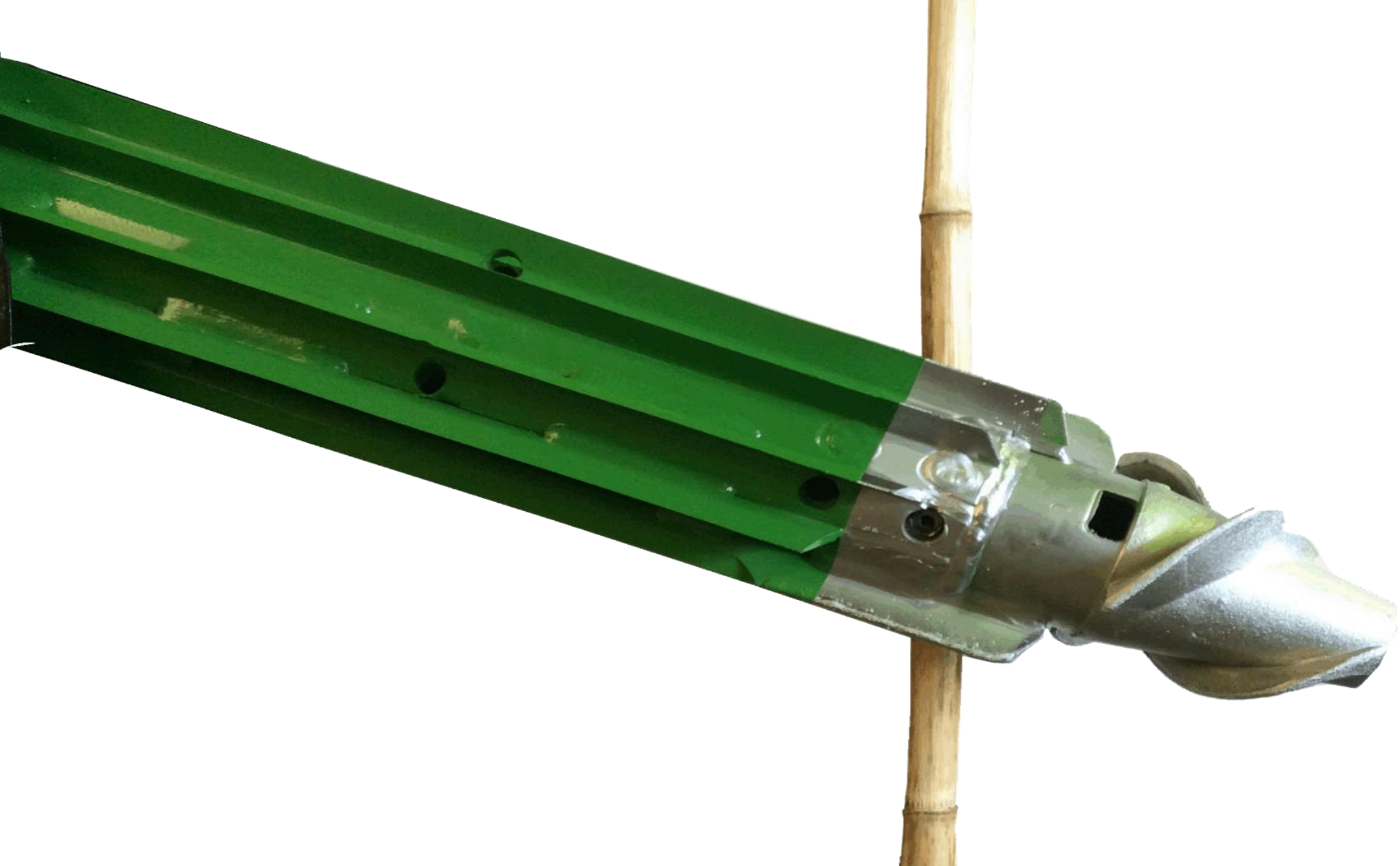
Intermeshing Flutes



Rotating Wall of Steel



Revolving
Window





Chop Bean Stalk

Chop Corn Stalk





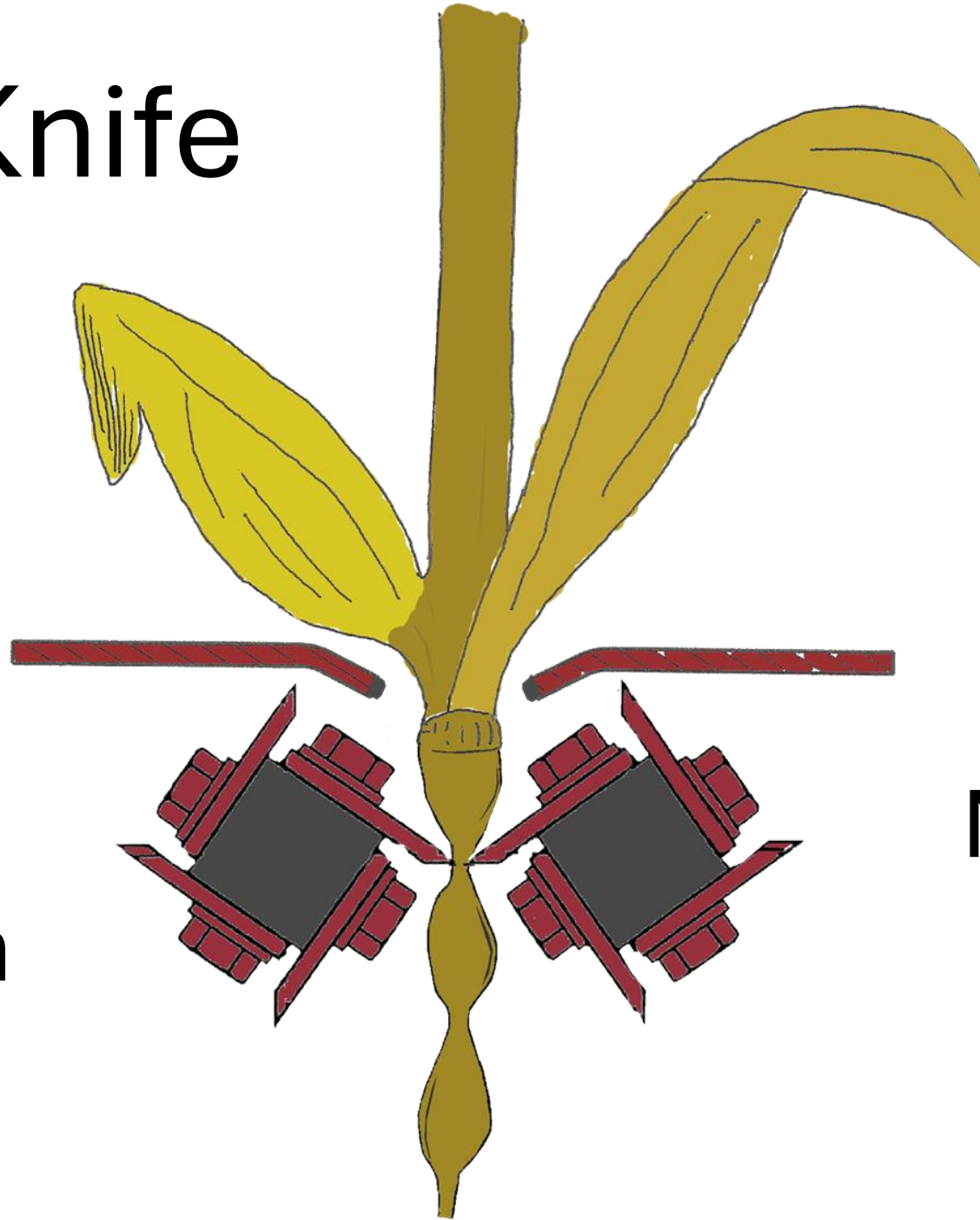
NNTC Networking





Knife to Knife

Normal
1/32 inch



Maximum
1/8 inch



Knife to
Knife

92% Cover



Calmer BT
Chopper™

78% Cover



Problem!







**John Deere
H221769**

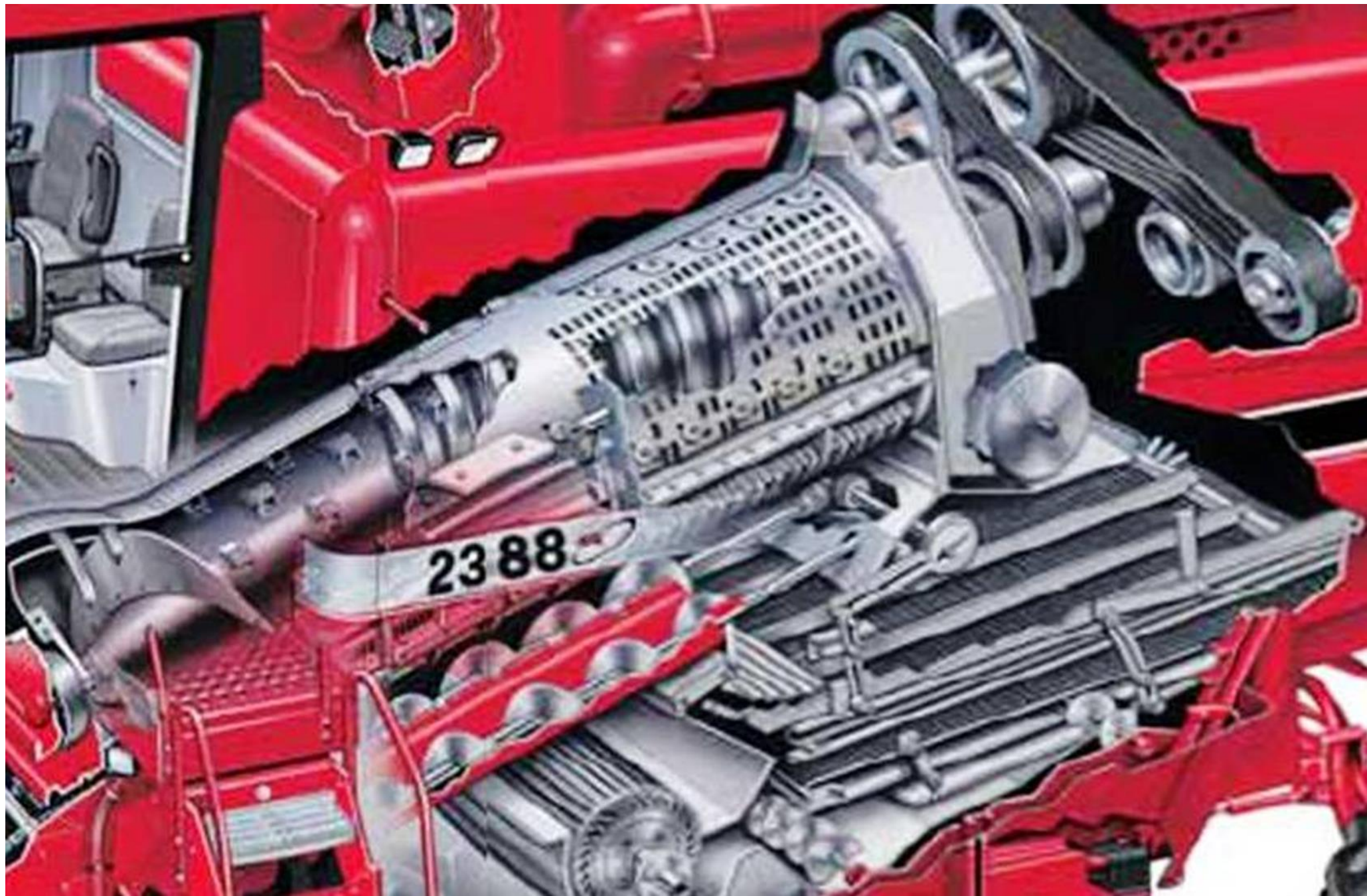
\$69.45

*Source: "greenpower" on
The Combine Forum*

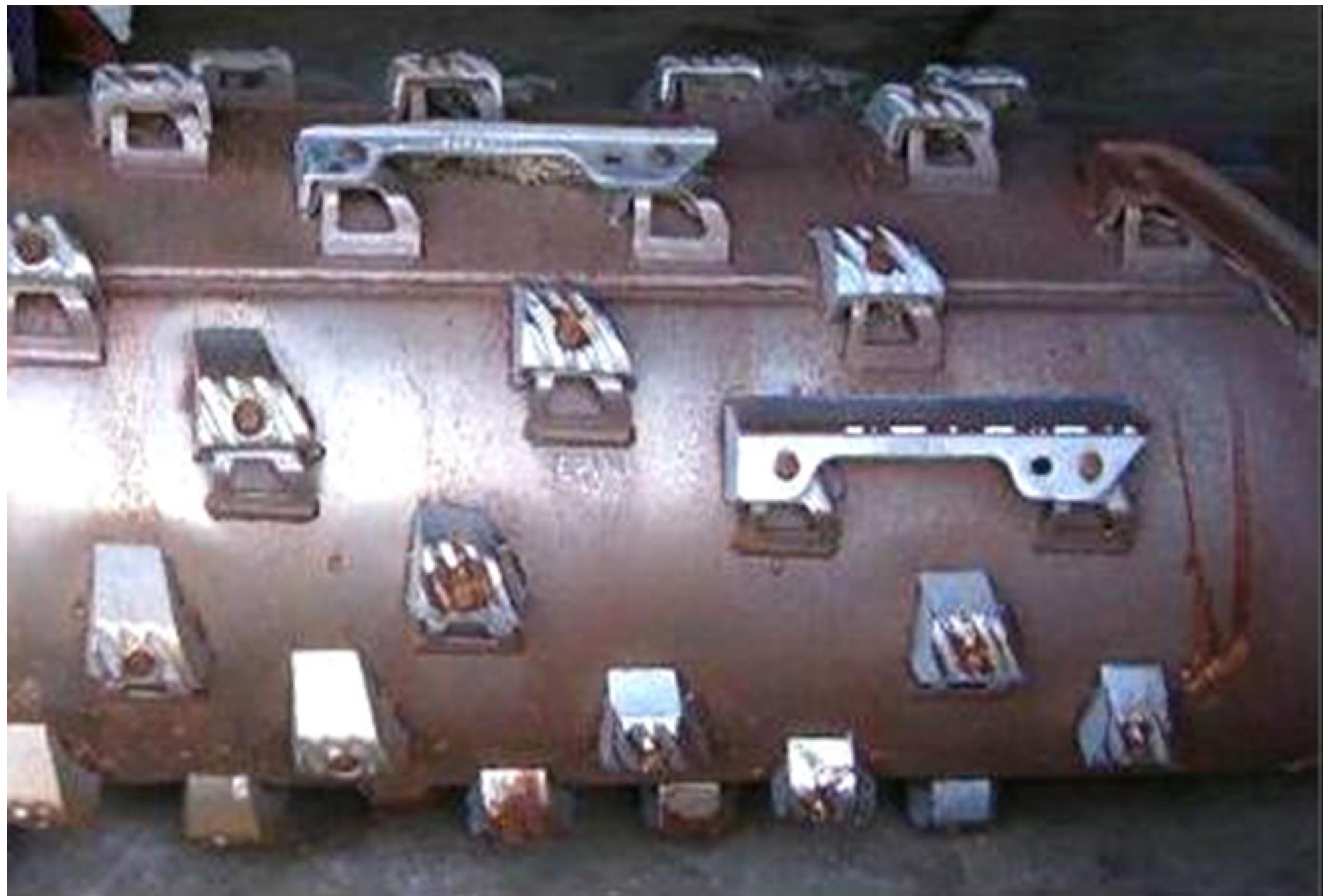


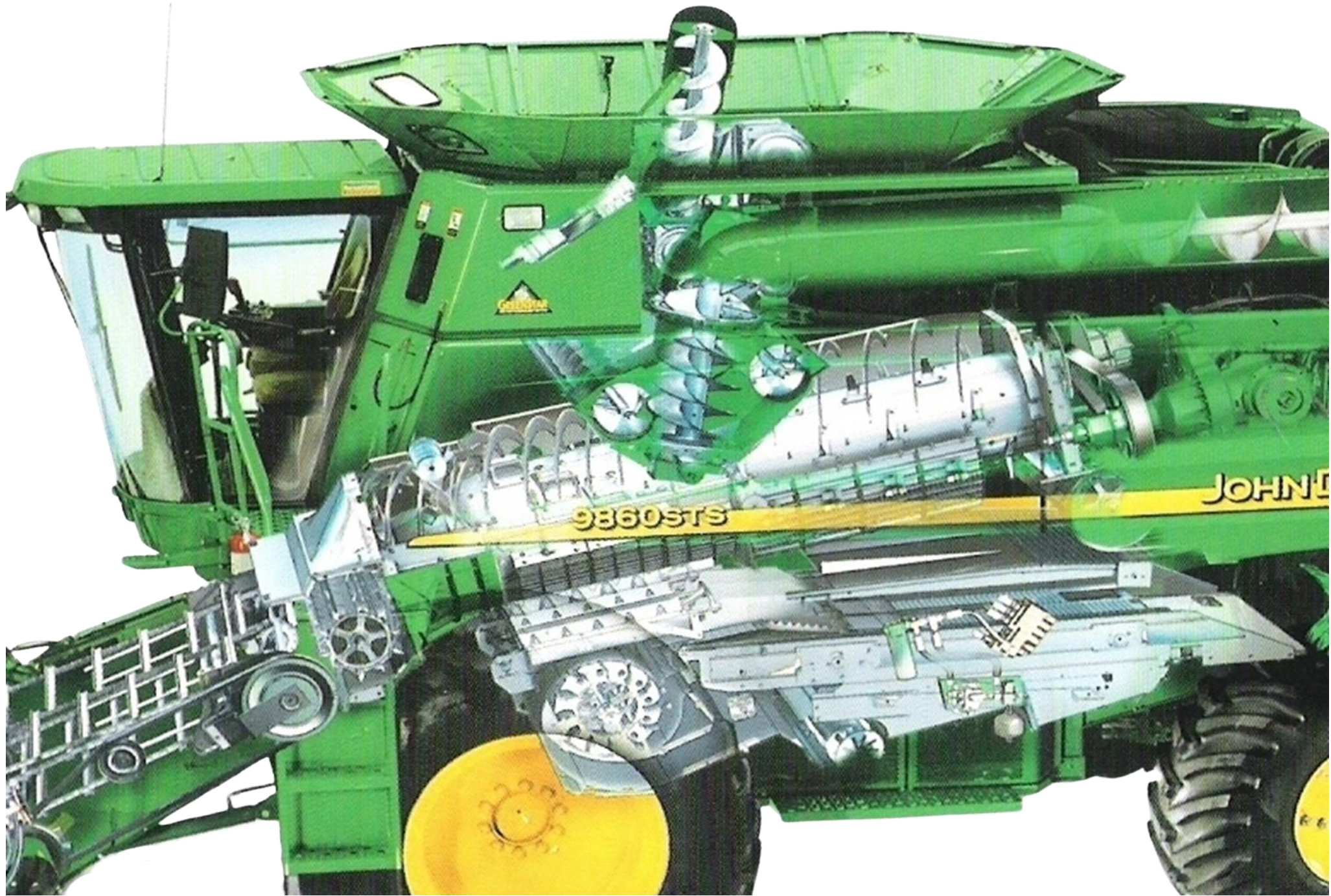
John Deere
H221769
\$69.45













Source: Bob Bottens



1. Rotor Speed
2. Concave Clearance
3. Transport Vanes
4. Fan Speed
5. Sieve Settings
6. Automation

250 bu corn

= ? kernals/sq/ft





AXIAL-FLOW





AXIAL-FLOW

OSTINE

DANGER
DO NOT
REMOVE
THIS LABEL

EMF



Key Takeaways

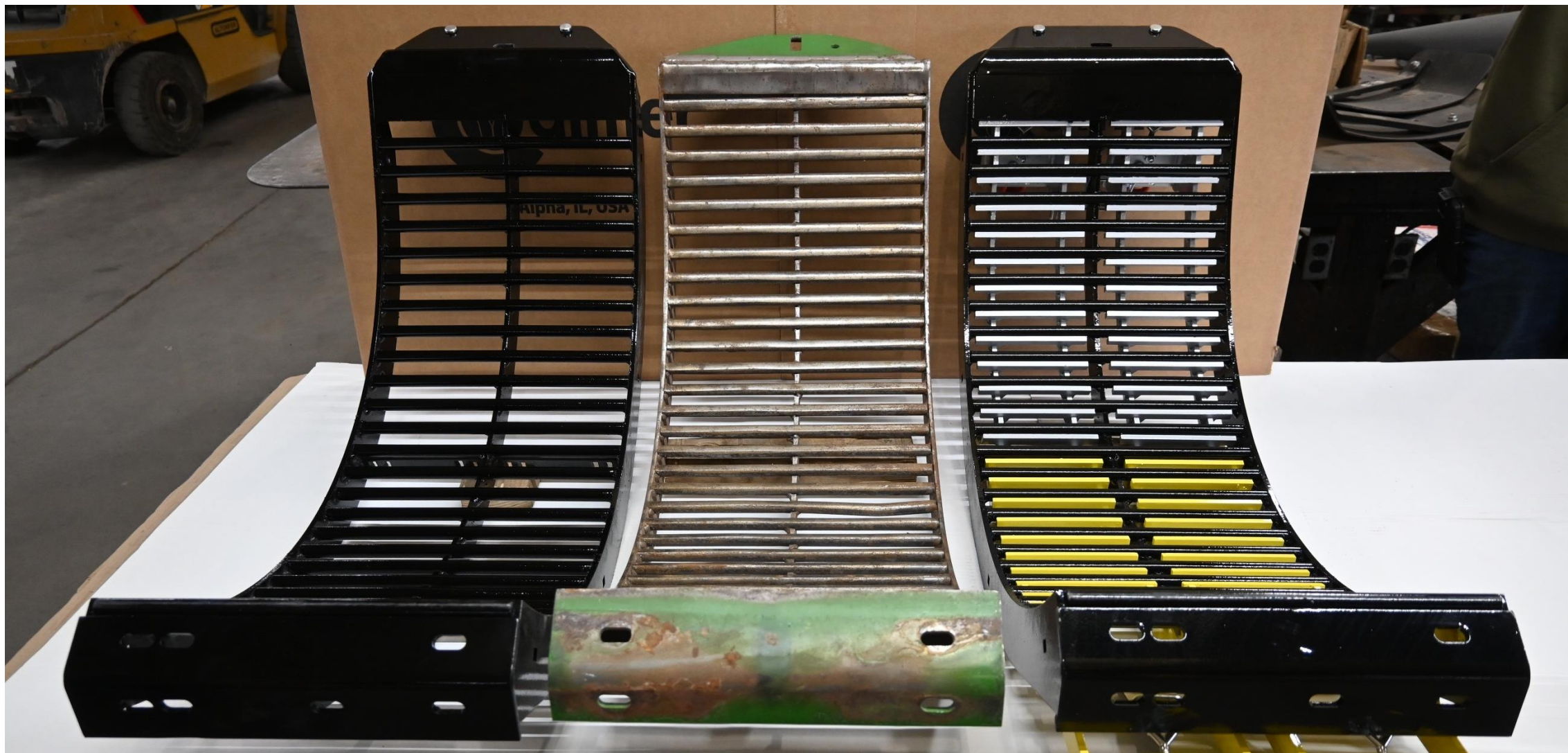




Corn 3/4"

**Corn &
Beans 5/8"**

Soybeans 1/2"



Calmer

John Deere

Calmer w/ inserts

Thank You!

Call me if you need anything:
(309) 368-1182 (Marion Calmer cell)



Website:

www.CalmerCornHeads.com

YouTube:

<https://www.youtube.com/@CalmerCornHeads>

