Cover Crop Management

Soil Quality Improvement Made Easy…errr!

2OO10

Barry Fisher,

State Agronomist ,

NRCS


No-Till


Conservation
Cropping Systems
INitiative
Nutrient Management


Controlled Traffic
and
Precision Technology


Cover Crops


Crop Rotation
And Stripcropping

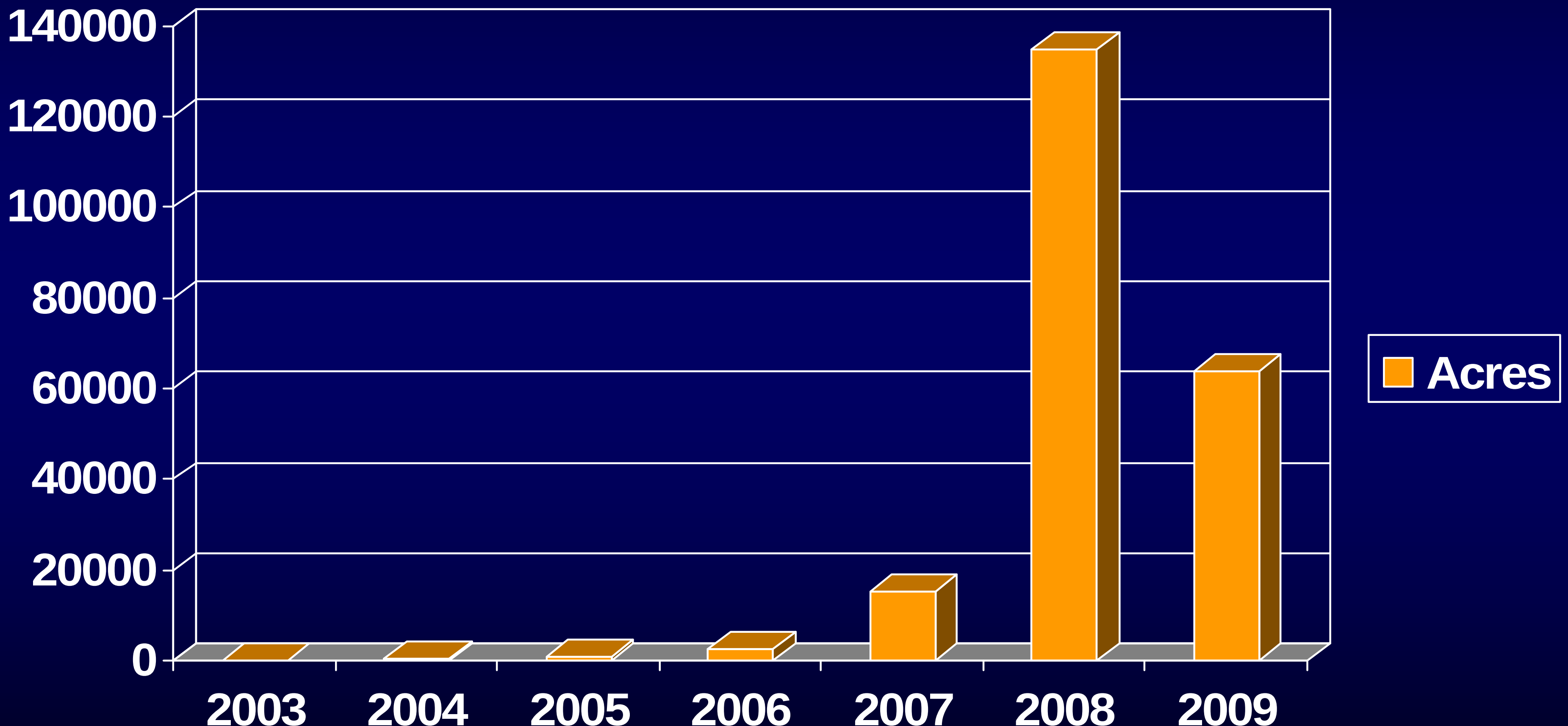
IN FY08 EQIP = $ 19 million

- Nutrient Management-
  - $3 million
- Cover Crops-
  - $3 million
- No-Till/Strip-Till-
  - $3.4 million
- Waste Utilization-
  - $2 million

IN FY09 EQIP = $ 10 million

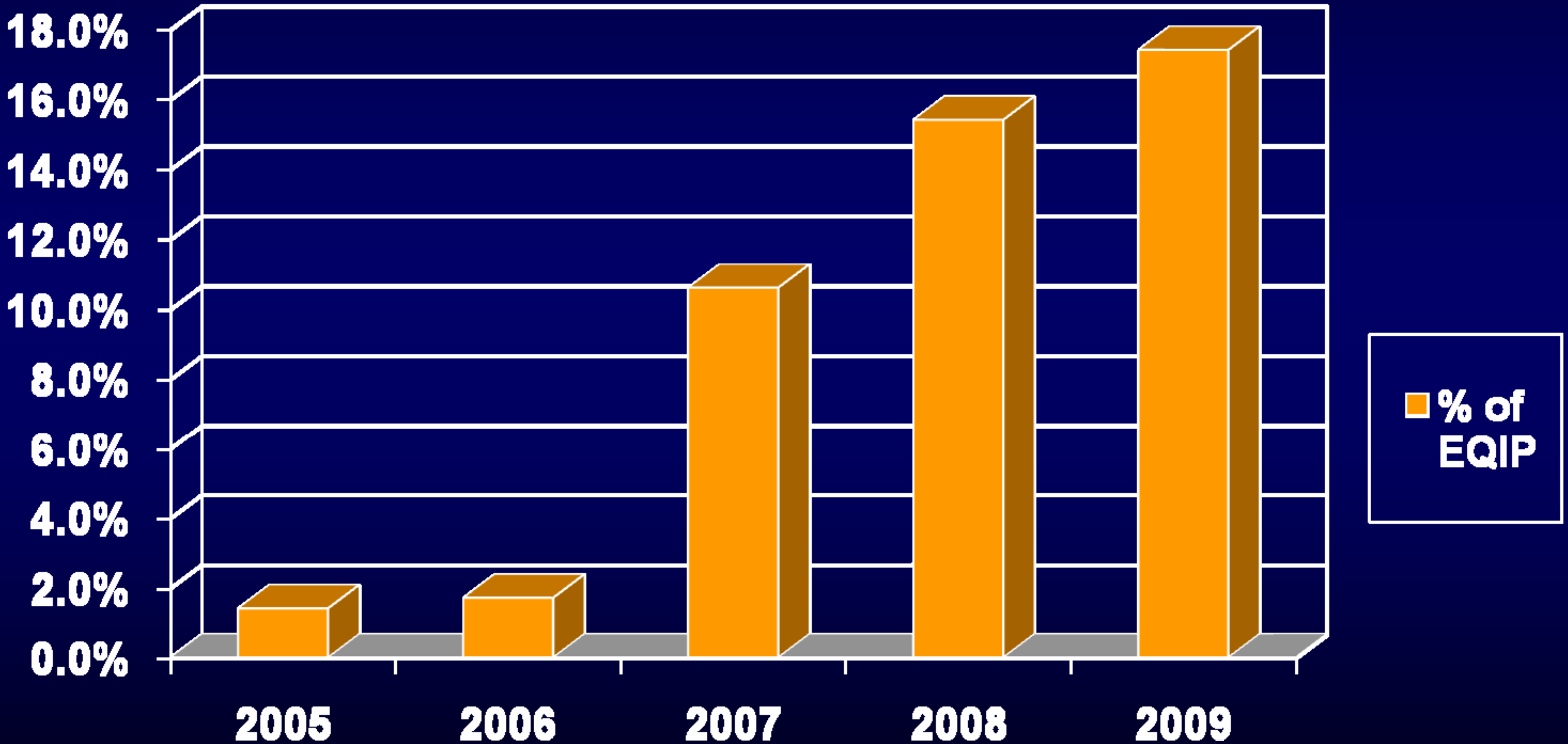
- Cover Crops-
  - $2 million
  - 64,000 ac.
- No-Till/Strip-Till-
  - $1 million
  - 43,000 ac.
- Energy Conservation and Soil Quality Systems
  - $.9 million
  - 40,000 ac.

EQIP Cover Crops – Acres per Year



Contracted

EQIP Cover Crops – % of Budget

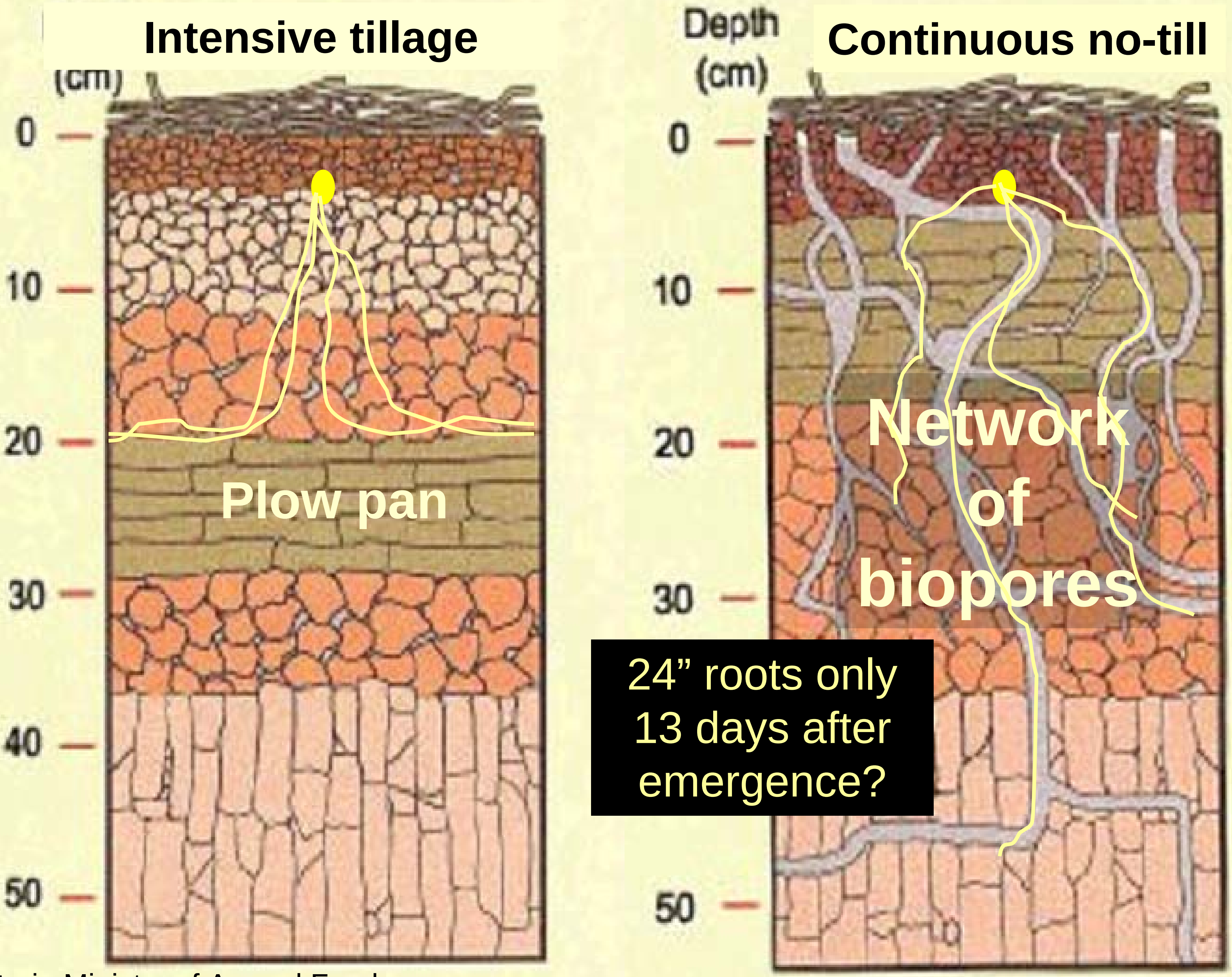


Contracted

Build and Maximize Biology and Vertical Structure

Soybean root following previous root channel

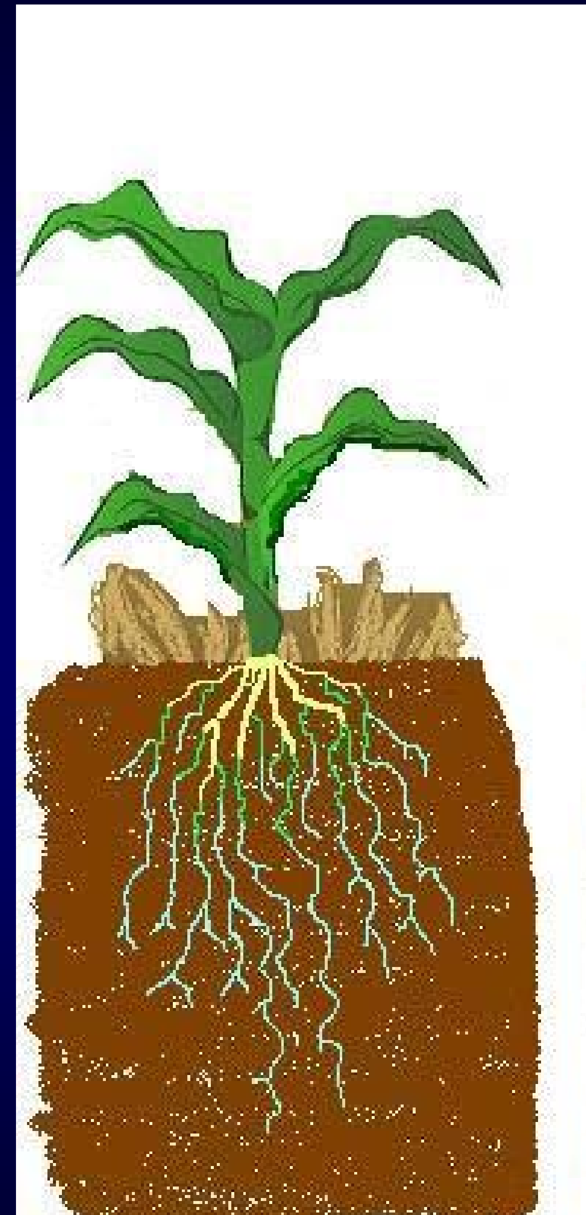
Conservation Cropping Systems INitiative



Ontario Ministry of Ag and Food

Build and Maximize Biology and Vertical Structure

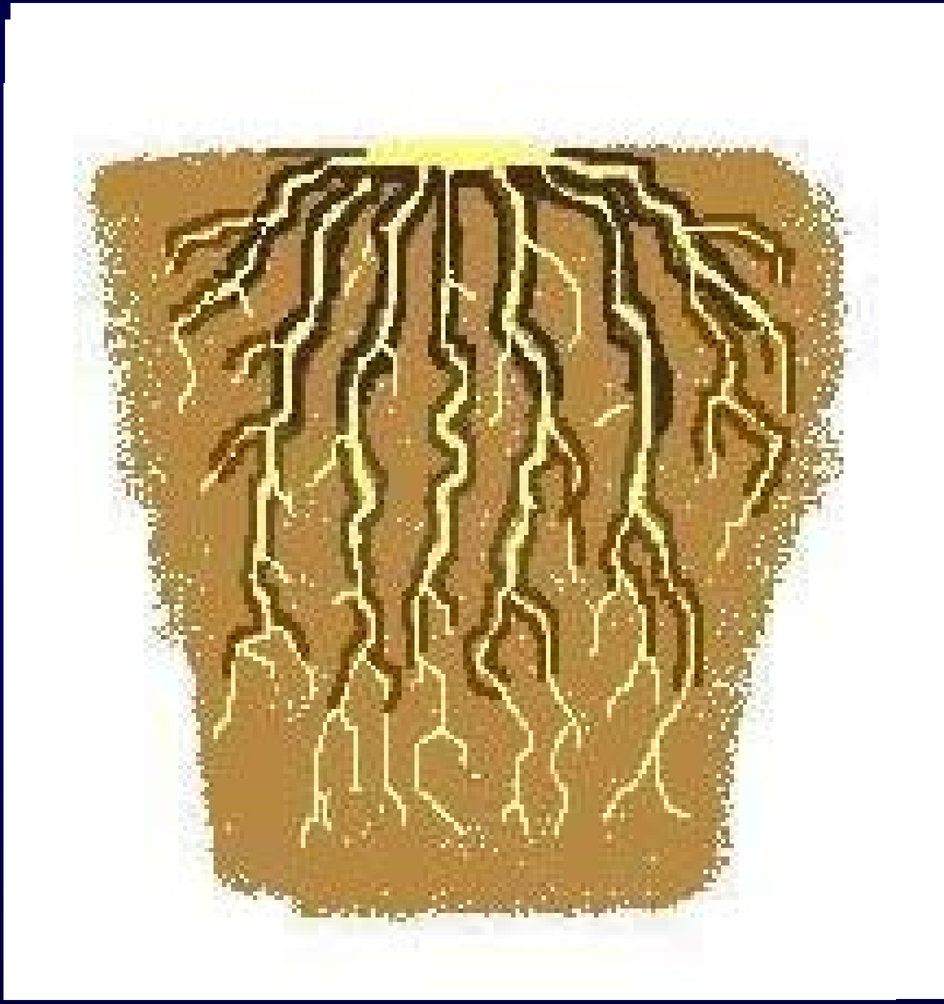
Adding root mass and depth each cycle



Conservation Cropping Systems INitiative

Build and Maximize Biology and Vertical Nutrients and OM

Building the Rhizosphere volume and depth each cycle



Conservation Cropping Systems INitiative

Annual Ryegrass Cover Crop

DeSutter Farm-Fountain Co.

Drilled on Oct. 1 at 15 lbs./ac.

Roots down to 51” on April 8

Conservation Cropping Systems INitiative

Corn Roots down 70”+ in August

Field Office Technical Guide (eFOTG)

Section IV

Seeding Tool

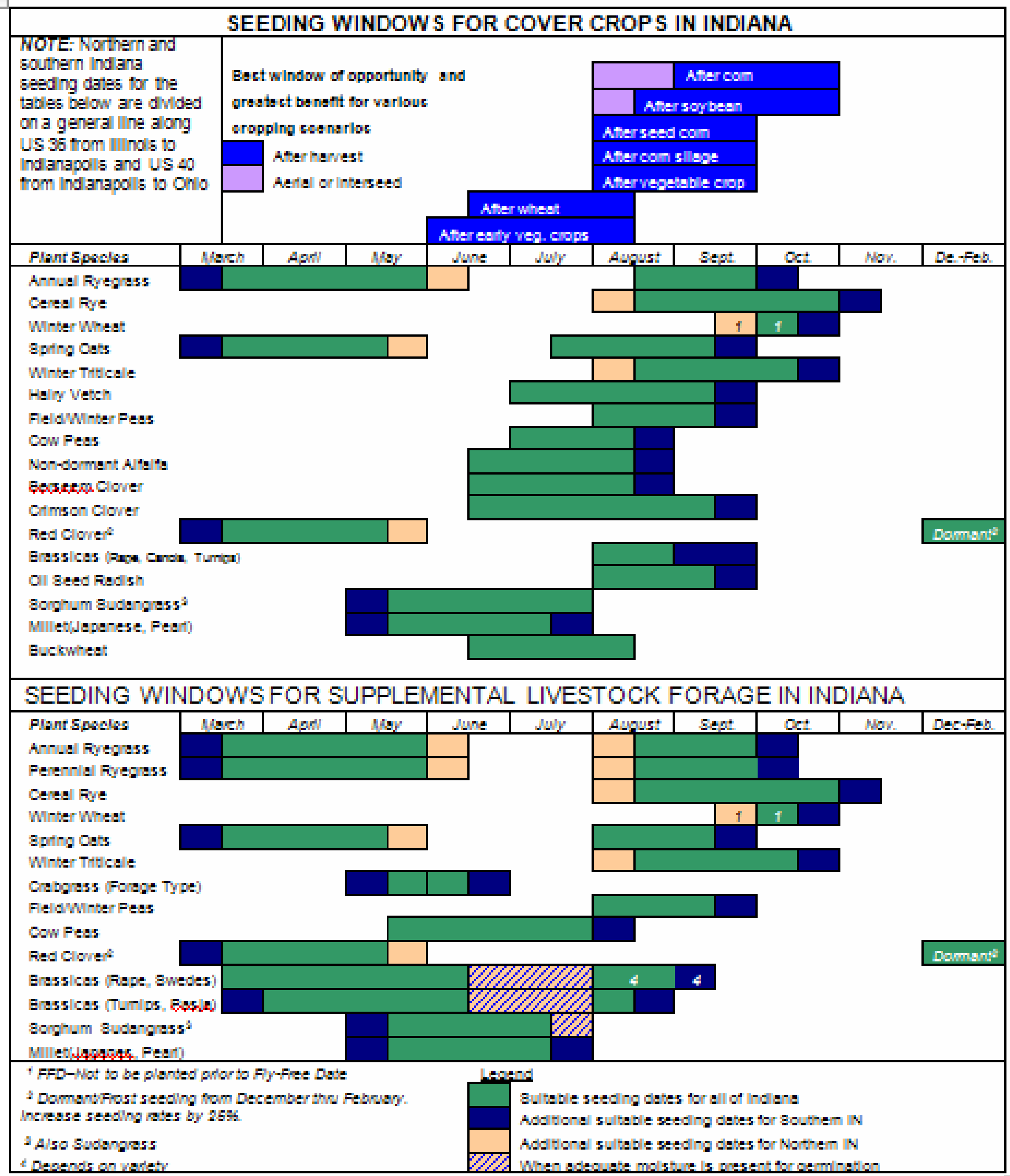
- Seeding Guide
- Seeding Calculator
- Fertilizer Calculator

NRCS

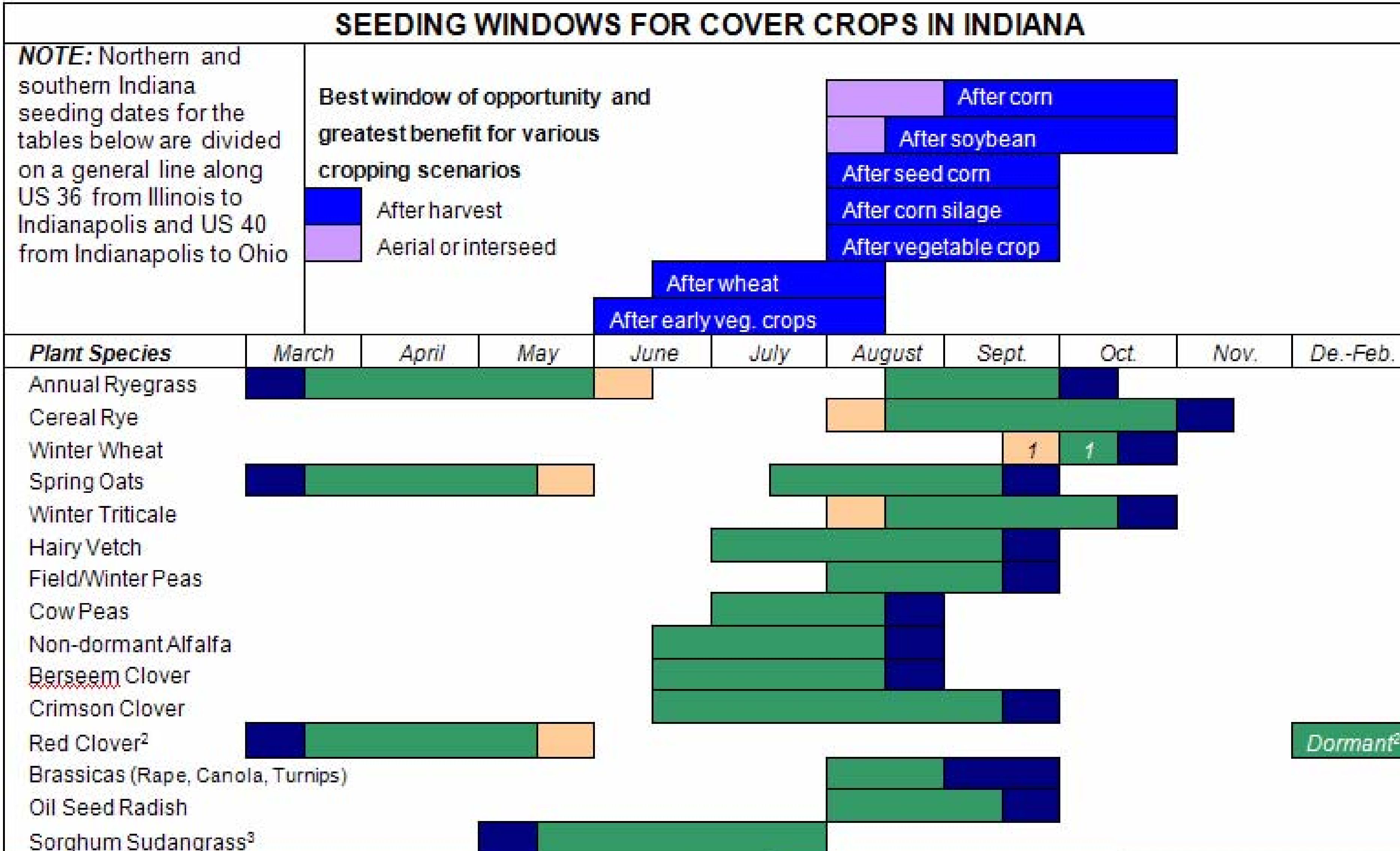
Section IV

Seeding Tool

- Seeding Guide



NRCS Natural Resources Conservation Service

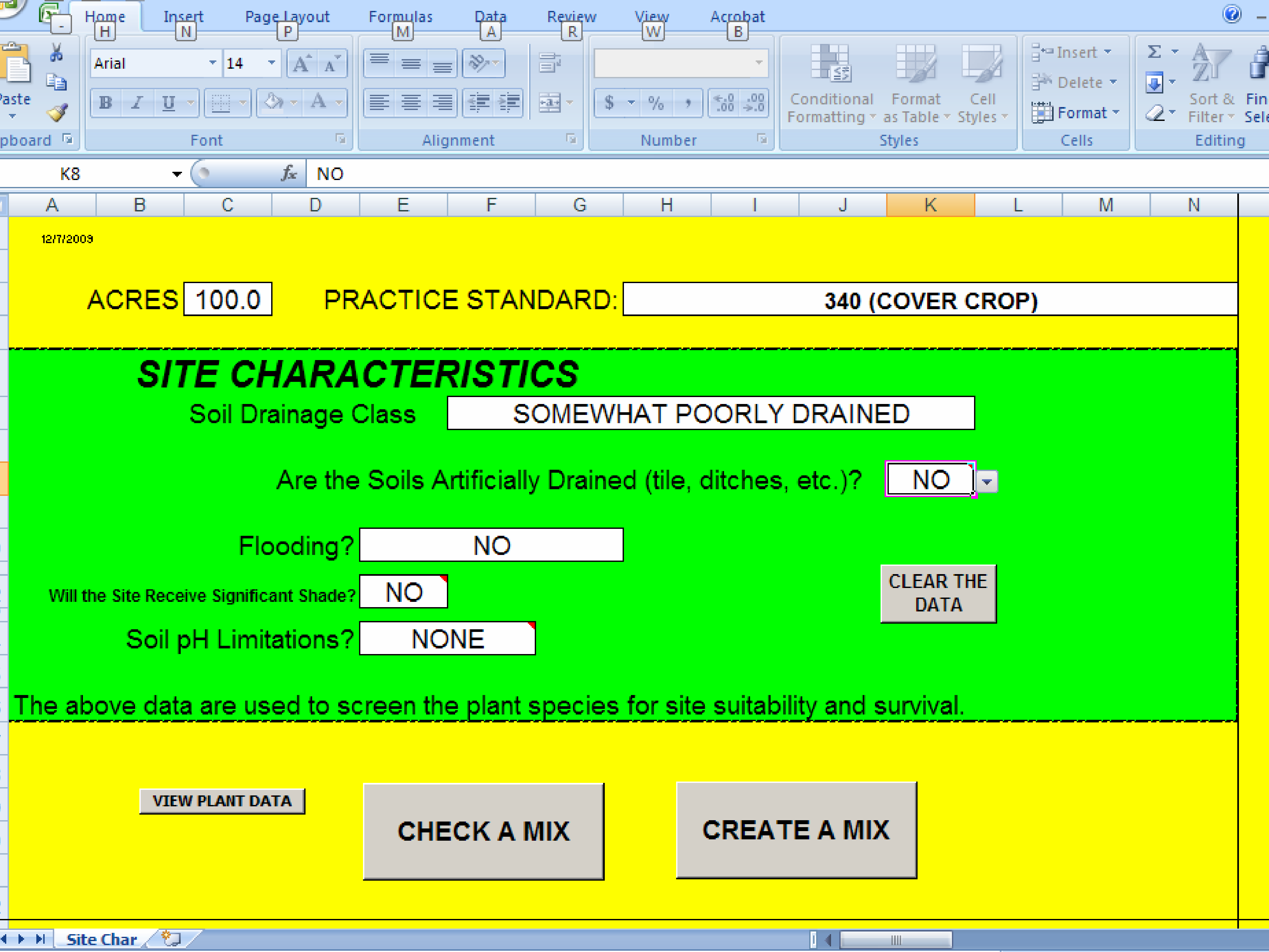


Field Office Technical Guide (FOTG)

Section IV

Seeding Tool

- Google- eFOTG
- Dec. 2009
- Excel



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NO
12/7/2009
ACRES 100.0
PRACTICE STANDARD: 340 (COVER CROP)
SITE CHARACTERISTICS
Soil Drainage Class SOMEWHAT POORLY DRAINED
Are the Soils Artificially Drained (tile, ditches, etc.)? NO
Flooding? NO
Will the Site Receive Significant Shade? NO
Soil pH Limitations? NONE
CLEAR THE DATA
The above data are used to screen the plant species for site suitability and survival.
VIEW PLANT DATA
CHECK A MIX
CREATE A MIX
Site Char

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	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1	**Species**	**Flood**	**Inundation**	**pH**	**pH**	**Fertility**	**Shade**	**Forage**	**Annual**	**Range**	**Salinity**	**Seeds**
2	**Common Name**	**Tolerant**	**(days)**	**min**	**max**	**Response**	**Tolerant**	**Value**	**Perennial**		**mS/m**	**per**
3		**3/**							**Bi-annual**	**5/**	**mS/m 6/**	**Pound**
4												
60	Barley	Brief	3-6	5.5	8.4		Yes	Good	Annual	Entire	6-12	12000
61	Buckwheat	No		5.0	7.2		No	Poor	Annual	Entire		20,000
62	Clover, Crimson	No		5.5	7.3		Yes	Excellent	Annual	Entire		150000
63	Clover, Red (cover crop)	Long	7-15	5.5	8.4		No	Good	Perennial	Entire	2-3	275,000
64	Crabgrass (red river)	No		5.1	7.3		No	Good-Exc	Annual	Entire		155000
65	Kale	No		5.1	7.3		No	good	Annual	Entire		155,000
66	Millet, Japanese	No		5.6	8.4		No	Fair-Good	Annual	Entire		155000
67	Millet, Pearl	No		5.6	8.4		No	Poor-Fair	Annual	Entire		88,000
68	Oats	Brief	3-6	5.1	8.4		No	Good	Annual	Entire	3-6	13,000
69	Pea, Austrian Winter	No		5.6	8.4		No	Good	Annual	Entire		3,500
70	Pea, Cow	No		5.6	8.4		No	good	Annual	Entire		3600
71	Radish, Oilseed	No		5.6	8.4		Yes	Good	Annual	Entire		52,000
72	Rape	No		5.6	7.3		Yes	Good	Annual	Entire		157,000
73	Rye, Winter Cereal	Brief	3-6	5.1	8.4		Yes	Good	Annual	Entire	3-6	18,000
74	Ryegrass, Annual	Long	15-20	5.6	8.4		Yes	Good	Annual	Entire		200,000
75	Sorghum-sudangrass	No		5.6	7.3		Yes	Fair-Good	Annual	Entire		28,000
76	Sudangrass	No		5.6	7.3		Yes	Fair-Good	Annual	Entire	3-6	55,000
77	Triticale	No		5.1	8.4		No	Fair-Good	Annual	Entire		16,000
78	Turnip, Forage type	No		5.6	7.3		No	good	Annual	Entire		155,000
79	Vetch, Hairy	No		5.6	8.4		Yes	Fair	Annual	Entire		20,000
80	Wheat, Winter	Brief	3-6	5.1	8.4		Yes	Good	Annual	Entire	3-6	15,000
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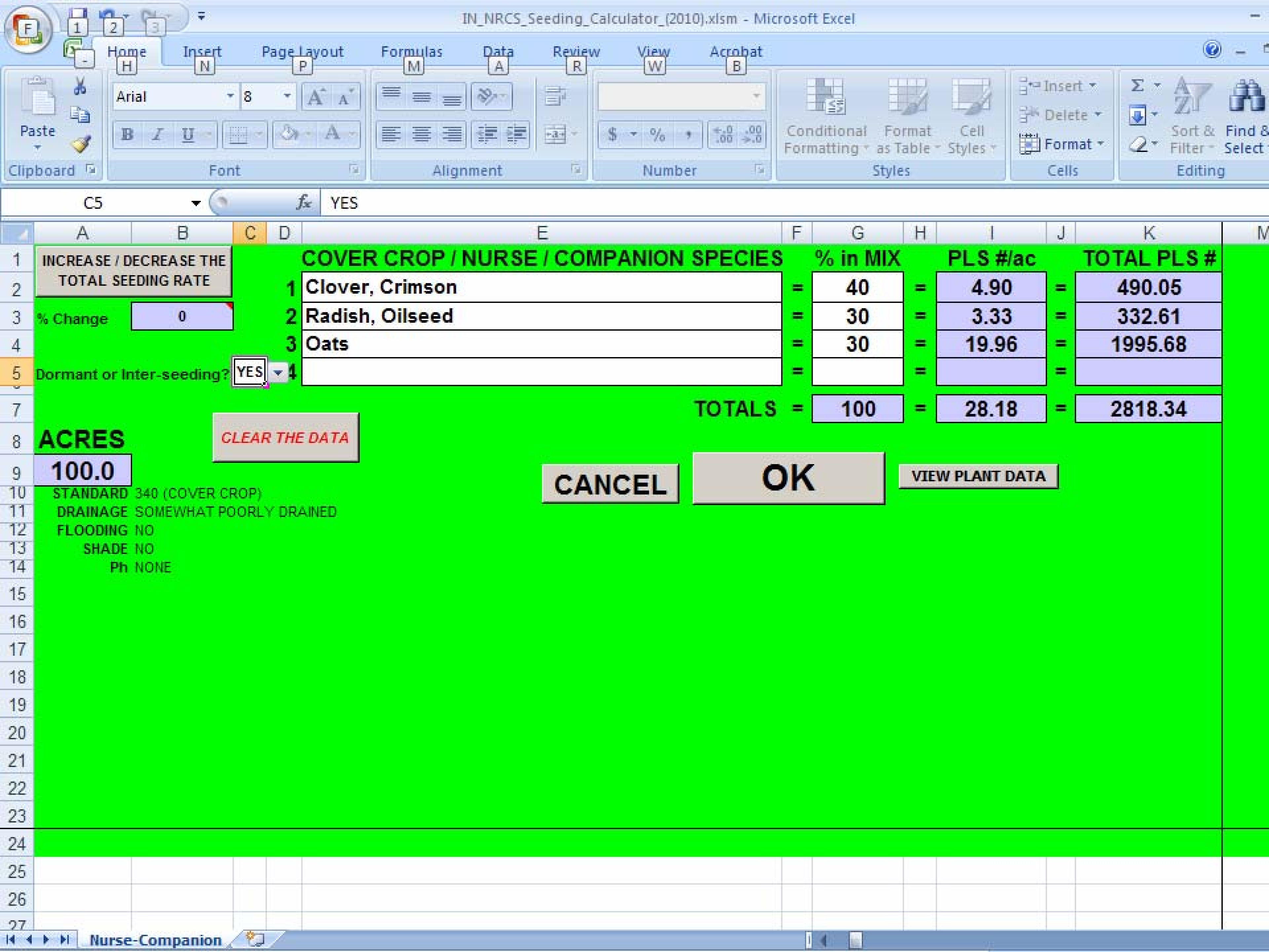
IN_NRCS_Seeding_Calculator_(2010).xlsm - Microsoft Excel
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C5
YES
INCREASE / DECREASE THE TOTAL SEEDING RATE
% Change
0
Dormant or Inter-seeding?
YES
COVER CROP / NURSE / COMPANION SPECIES
% in MIX
PLS #/ac
TOTAL PLS #
1 Clover, Crimson = 40 = 4.90 = 490.05
2 Radish, Oilseed = 30 = 3.33 = 332.61
3 Oats = 30 = 19.96 = 1995.68
4
TOTALS = 100 = 28.18 = 2818.34
ACRES
100.0
CLEAR THE DATA
CANCEL
OK
VIEW PLANT DATA
STANDARD 340 (COVER CROP)
DRAINAGE SOMEWHAT POORLY DRAINED
FLOODING NO
SHADE NO
Ph NONE
Nurse-Companion

IN_NRCS_Seeding_Calculator_(2010).xlsm - Microsoft Excel

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C5 | Ima Werkin

United States Department of Agriculture

NRCS Natural Resources Conservation Service

Indiana - December 2009 (ver. 1.0)

Indiana Specification Sheet

340 (COVER CROP)

Landowner: Ima Werkin — **County:** Marion

Farm:	Tract:	Field(s):	Planted Acres	Planted Width	Slope %	Grade %	Flood Frequency	Shade?	Date:
1	100	2-5	100.0	NA	NA	NA	NO	NO	

Soil Type(s): — **Soil Drainage Class:** SOMEWHAT POORLY DRAINED

RECOMMENDED SPECIES and SEEDING RATE (PLS #/ac = Pure Live Seed Pounds per Acre)

COVER CROP / NURSE CROP / COMPANION CROPS	RATE PLS#/ac	TOTAL = (RATE X ac)	COVER CROP / NURSE CROP / COMPANION CROPS (continued)	RATE PLS#/ac	TOTAL = (RATE X ac)
Clover, Crimson	4.90		Radish, Oilseed	3.33	
Oats	19.96				

NOTES:

BEFORE PLANTING in Year:

- ☐ Permanent Fence: ft = **(see attached design)**
- ☐ Water Source: — Pipeline: ft = (see design)
- ☐ Water Facilities(s): — Livestock Crossing: **(see design)**
- ☐ Herbicide$_1$ **(per label)**: Dates =
- ☐ Herbicide$_2$ **(per label)**: Dates =
- ☐ Tillage: Dates =
- ☐ Structures, Grading, Leveling, Filling – **See the attached Design Sheet.**
- ☐ **Apply fertilizer/manure and lime according to an approved soil test and plan.**
- ☐ Other:

BACK to Start - this will un-do all previous species and rate entries

Make Changes

SAVE JOB SHEET TO A SEPARATE FILE

Job Sheet | FORB SHEET | All Seeding Dates

"...Expect Success!"

Barry Fisher, State Agronomist

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Cover Crop Web Links

http://www.covercrops.msu.edu/

http://www.sare.org/publications/

http://www.sarep.ucdavis.edu/

http://www.nrcs.usda.gov/technical/efotg/

http://www.mccc.msu.edu/

http://web.extension.uiuc.edu/regions/ag/ag2.htm