Cultivation systems of hybrid rye and crop rotation

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> SEEDING THE FUTURE SINCE 1856



Cultivation system - some factors to consider



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Seeding time and rate





0.6 unit/acre

0.8 unit/acre

>0.8 unit/acre

Establishment the most important

Cultivation system – direct drilling/planting



Probably the most used technology – but not always successfull!

- When no brake down of residue from previous crop
- This is especially when using low seeding rates.

Manage plant residue - canola





Poor establishment

Good establishment

Manage plant residue - soybean





Spring – after soybean





Stubble/residue management











Reduced tillage before planting



Require early planting to have a resonable plant cover before the winter

Late established in October











Established first half of Sep – Minnesota





Seeding depth



Seeding must be done accurately at 0.8 inch.

Establisment mistakes are irreversible!



Photo was taken on 30.10.2011. Sowing date 18.09.2011. All plants come from the same localization. Plants on the left were sown at the depth of 0.8 inch– proper development. Plants on the right were sown at the depth of 2 inch: low root mass, weakend development, very long intermediate spreading node - inappropriate development.

Rotation



- All pulses
- Canola
- Flax
- Potatoes
- Sugar beet
- Oat

Prefered to establish hybrid rye after these crops

- Grass pasture or for seed production Esstablisment can be an issue
- Spring wheat and barley
- Winter wheat (if for feed)

Volunteers can be an issue if planting hybrid rye after cereals

- Corn
- Rye hybrid rye

Risk for scab Ergot risk

Rotation





Funny head ⁽²⁾ - herbicide effect





We need to bring chemical companies on board to make sure new herbicides will be available for hybrid rye.



Aim (carfentrazone) Buctril (bromoxynil) Bronate (bromoxynil & MCPA) Huskie (bromoxynil & pyrasulfatol)

Starane flex (florasulam & fluroxypyr)???

MCPA 2-4-D



Ferilization strategy

Autumn 50-100% of PK (total need 20/50 lb/acre) 20 – 30 lb N/acre late planting







Fungycide strategy – if needed!







Increased management requires tremlines!









Thanks

Questions

Maria

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herbicides in hybrid rye, active ingredients and application periods



_			normal risk	_		medium risk		_		high risk	
		B TOWELT Stage		suring or fall			••	Let a ration of			••
		product	ingredients			product	ingredients			product	ingredients
fall	10 - 29	Alliance	Diflufenican+Metsulfuron	spring	10 - 29	Absolute M	Diflufenican+Flupyrsulfuron	spring	13 - 30	Atlantis	Idosulfuron+Mesosulfuron
spring	13 - 32	Ariane C	Clopyralid+Florasulam+Fluroxypyr	spring	13 - 29	Aniten Super	loxynil+Mecoprop-P	spring	13 - 29	Attribut	Propoxycarbazone
spring	13 - 39	Basagran DP	Bentazon+Dichlorprop-P	spring	13 - 39	Biathlon 4 D	Florasulam+Tritosulfuron	spring	13 - 39	Axial	Pinoxaden
fall	09 - 25	Beflex	Beflubutamid	fall	10 - 12	Filon Pack	Prosulfocarb	fall	10 - 29	Bacara forte	Diflufenican+Flufenacet+ Flurtanone
spring	12 - 32	Broadway	Florasulam+Pyroxsulam	spring	13 - 32	Husar	Idosulfuron	fall	10 - 12	Boxer	Prosulfocarb
fall	10 - 29	Carmina 640	Chlortoluron+Diflufenican	fall	11 - 13	Picona	Pendimethalin+Picolinafen	fall	00 - 13	Cadou	Flufenacet
spring	13 - 29	Concert	Metsulfuron+Thifensulfuron	spring	13 - 29	Pixie	Diflufenican+Mecoprop-P	fall	13 - 25	Ciral	Flupyrsulfuron+Metsulfuron
spring	13 - 37	Dirigent SX	Metsulfuron+Tribenuron	fall	11 - 29	Topik	Clodinafop	fall	10 - 29	Fenikan	Diflufenican+Isoproturon
spring	24 - 32	Duanti	Clopyralid+Fluroxypyr+MCPA	spring/fall	10 - 31	Traxos	Clodinafop+Pinoxaden	fall	10 - 13	Herold	Diflufenican+Flufenacet
spring	13 - 29	Duplosan DP	Dichlorprop					spring	13 - 32	Husar	ldosulfuron+Mesosulfuron+ Mefenpyr
fall	13 - 29	Falkon	Diflufenican+Penoxsulam					fall	00 - 29	Malibu	Flufenacet+Pendimethalin
fall	11 - 13	Herbaflex	Beflubtamid					spring	13 - 39	Ralon Super	Fenoxaprop-P
spring	11 - 29	Herbaflex	Beflubtamid					fall	00 - 14	Sumimax	Flumioxazin
fall	10 - 29	Lentipur 700	Chlortoluron								
fall	11 - 29	Lexus	Flupyrsulfuron								
fall	13 - 29	Primus	Florasulam								
spring	13 - 32	Primus Perfekt	Florasulam+Clopyralid								
spring	13 - 45	Starane XL	Florasulam+Fluroxypyr								
fall	00 - 11	Stomp Aqua	Pendimethalin								
fall	10 - 13	Trinity	Chlortoluron+Diflufenican+Pendimethali	in							

1,2 l/ha Falkon + 0,08 l/ha Primus



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1,5 l/ha Traxos (dosage up to 1,5 time higher)



Growth regulator, active ingriedients and application periods in hybrid rye





The use of growth regulators depends to weather conditions and groth conditions.

- dry and hot: reduce the application rate, or no application

- good growth conditions: normal application rate and maybe two times

Neuvirth and Bekker – hog producers



Had to cancel their trip to the conference as they had to stay home to harvest their hybrid rye.

