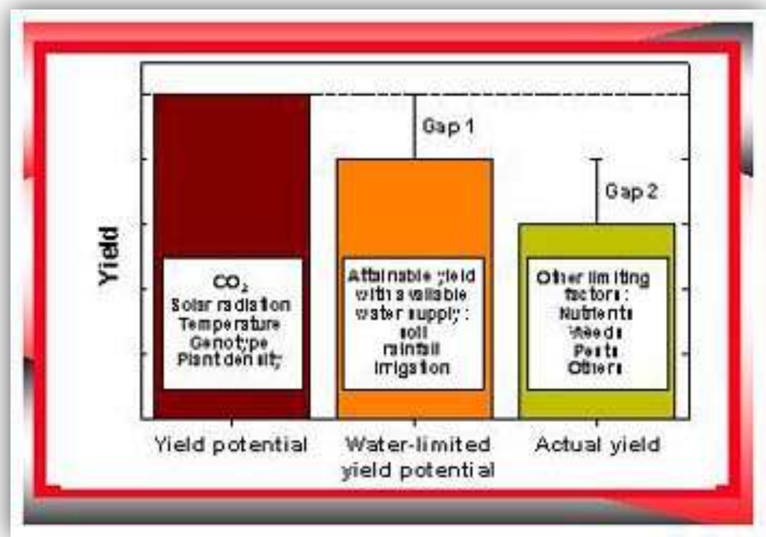
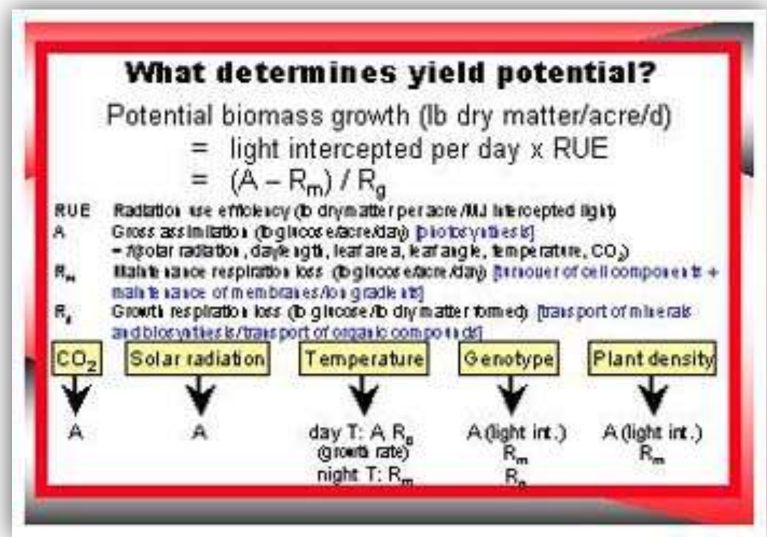
2005 Solution Days

Yield



05cmdc-dobermann001



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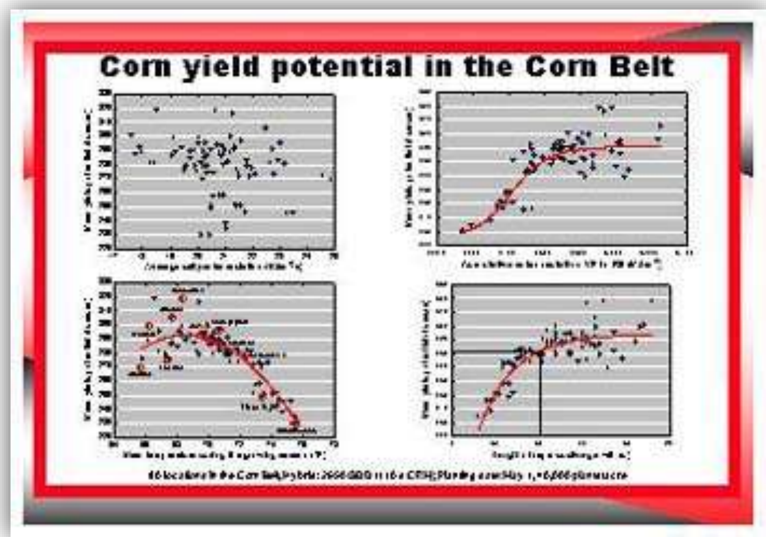

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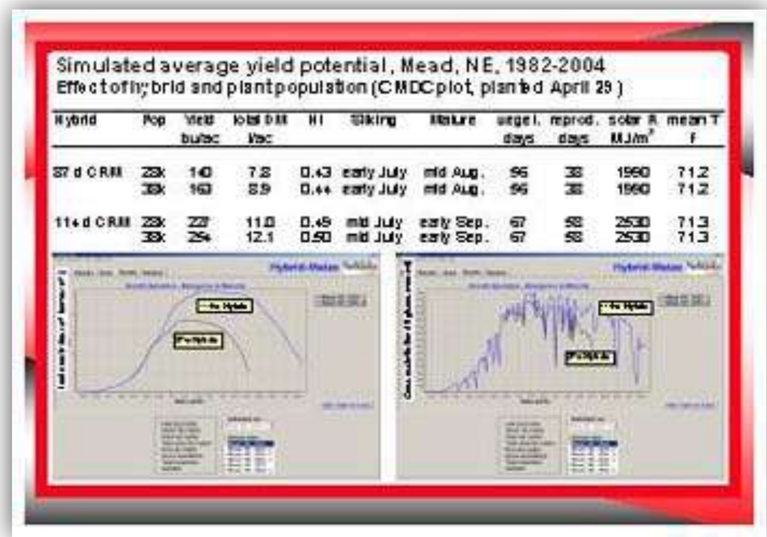
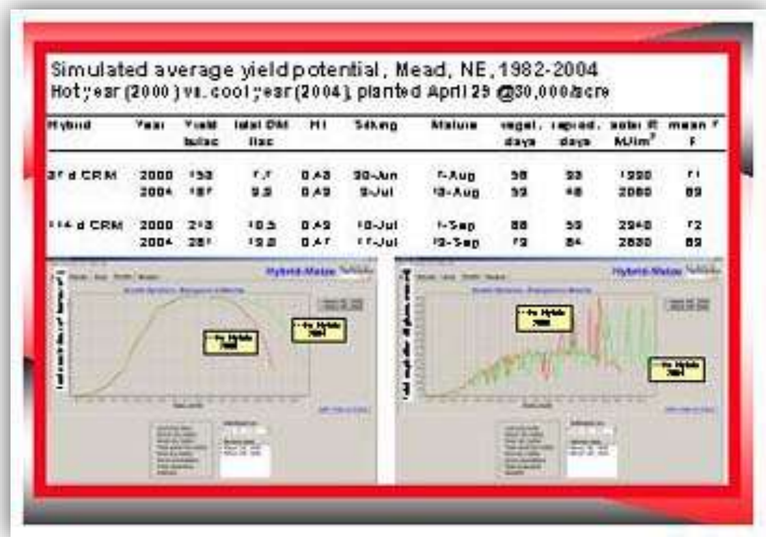


Hybrid	Pop	Yield bu/ac	total DM t/ac	HI	Silking	Mature	veget. days	reprod. days	solar R MJ/m²	mean T F
97 d CRM	23k	140	7.8	0.43	early July	mid Aug.	56	38	1990	71.2
	33k	163	8.9	0.44	early July	mid Aug.	56	38	1990	71.2
114 d CRM	23k	227	11.0	0.49	mid July	early Sep.	67	58	2530	71.3
	33k	254	12.1	0.50	mid July	early Sep.	67	58	2530	71.3

05cmdc-dobermann004



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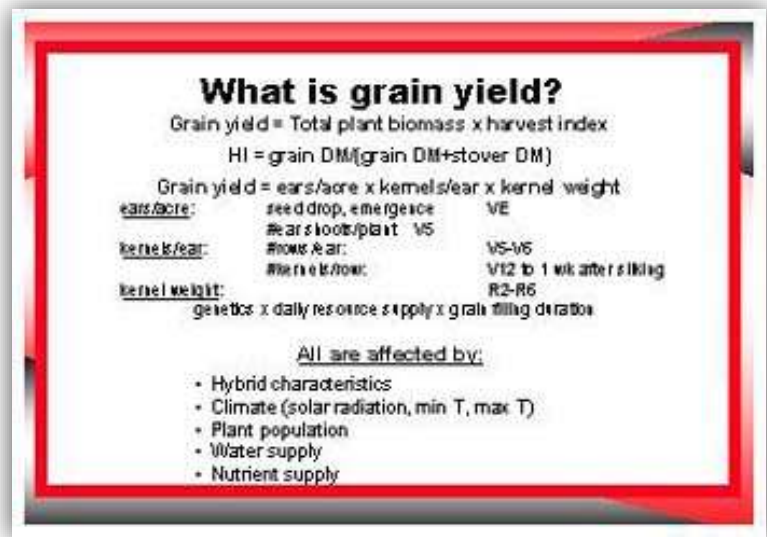

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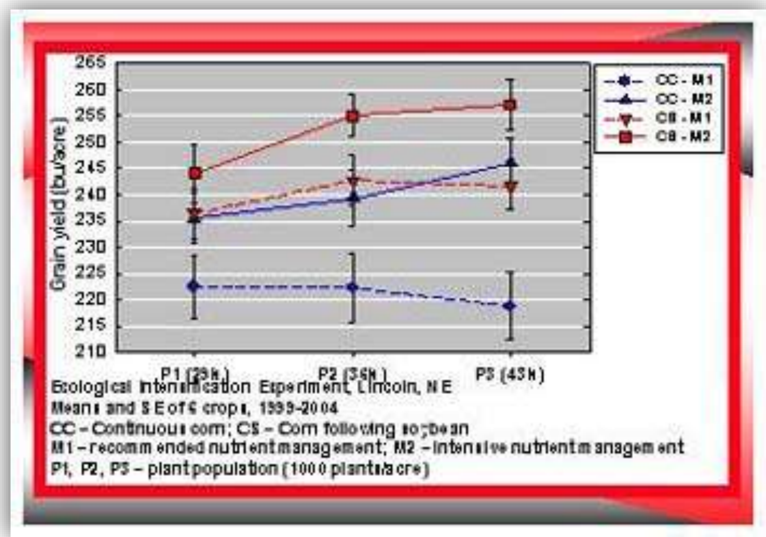

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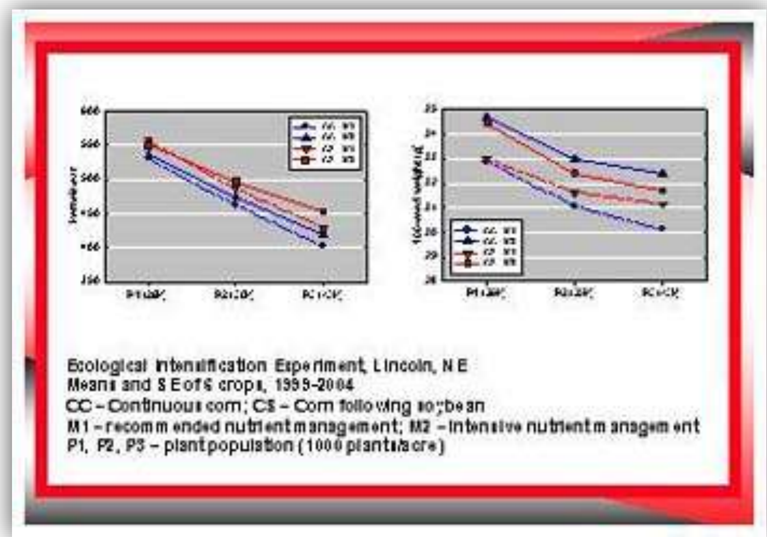

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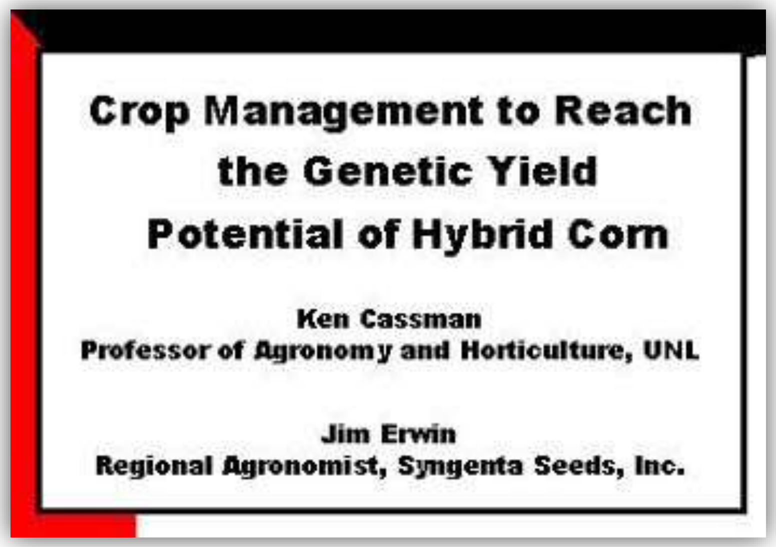
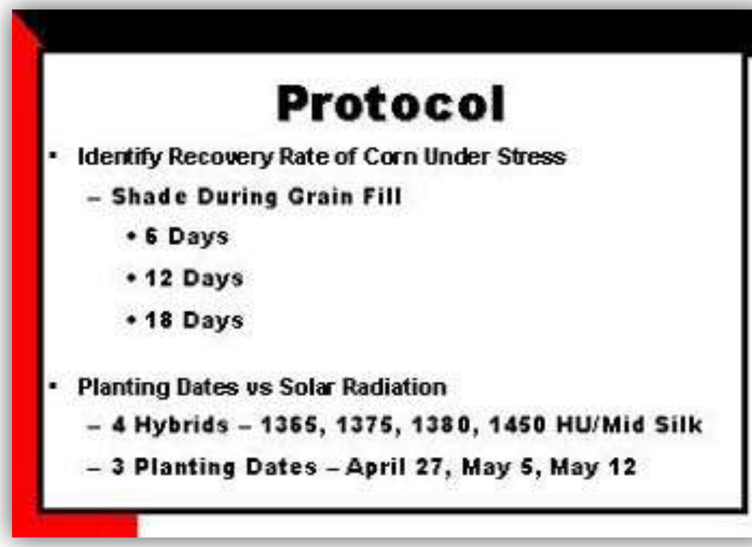


2005soldays gen yield001



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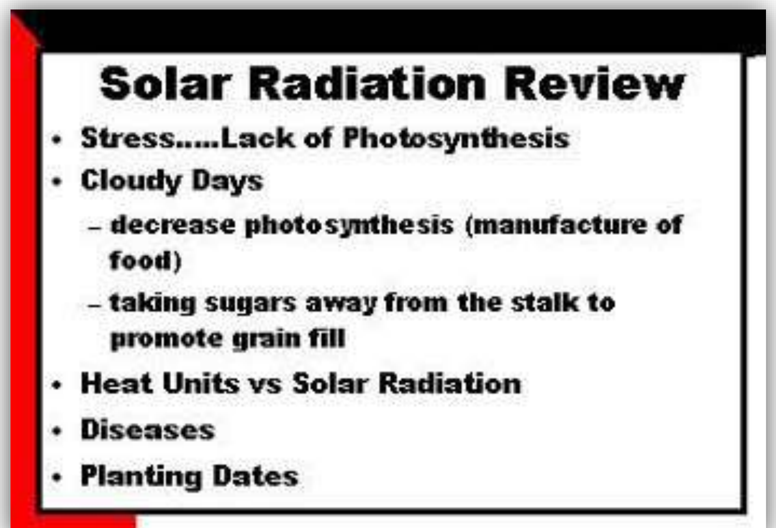
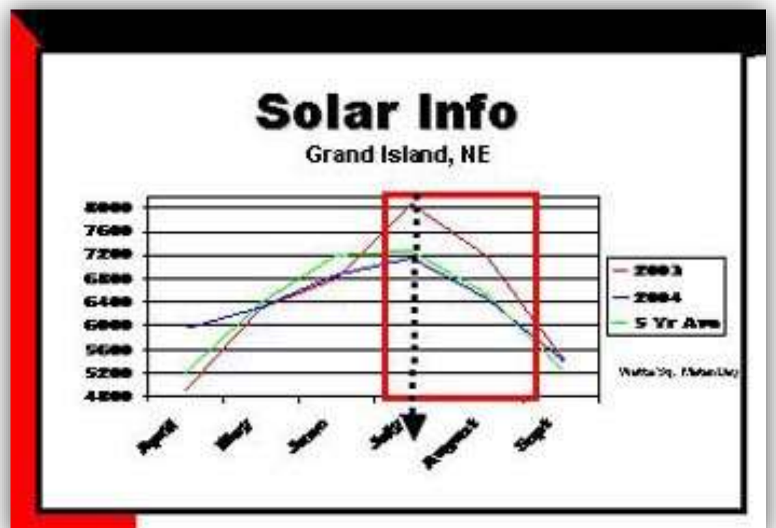


2005soldays gen yield003

2005soldays gen yield004

2005soldays gen yield005

2005soldays gen yield006



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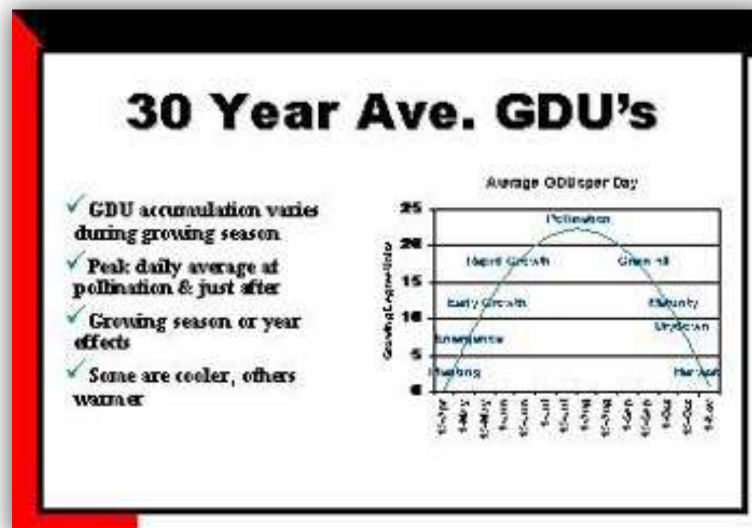

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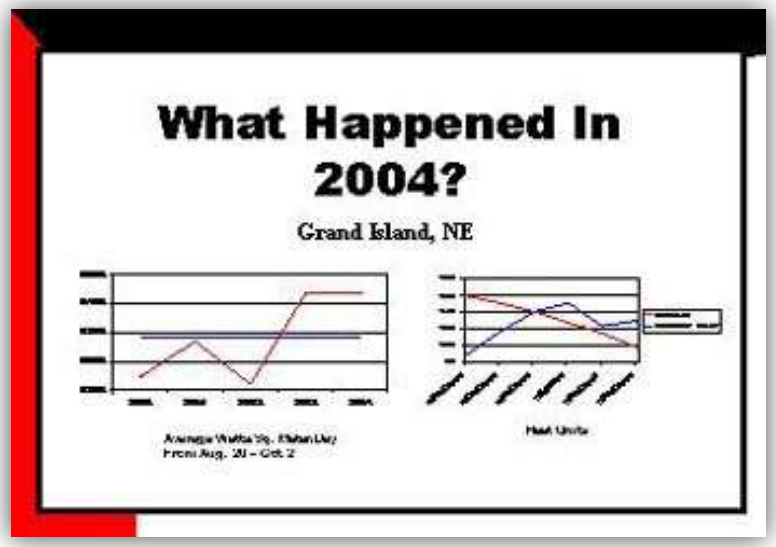

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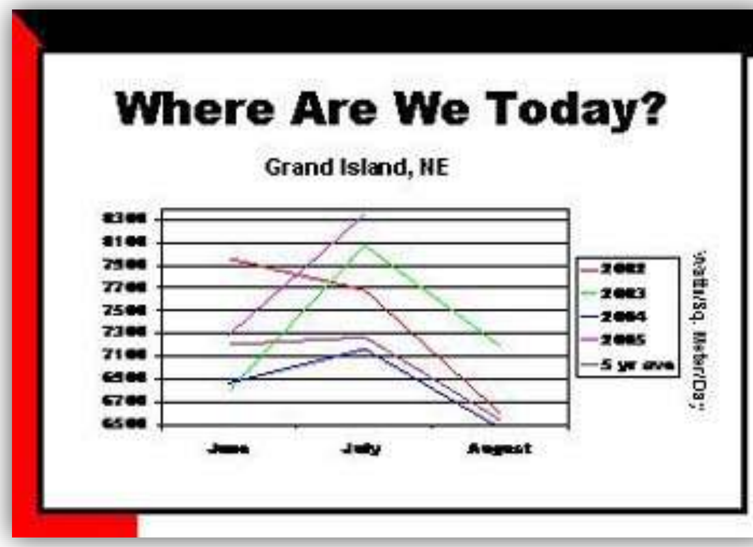

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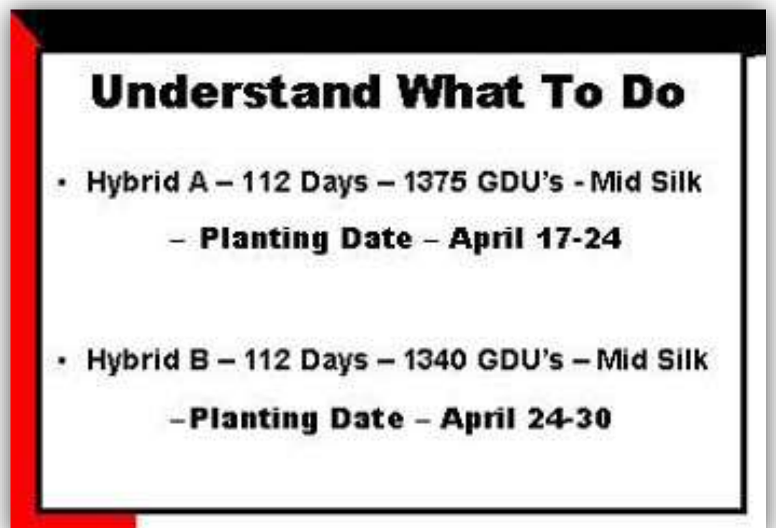

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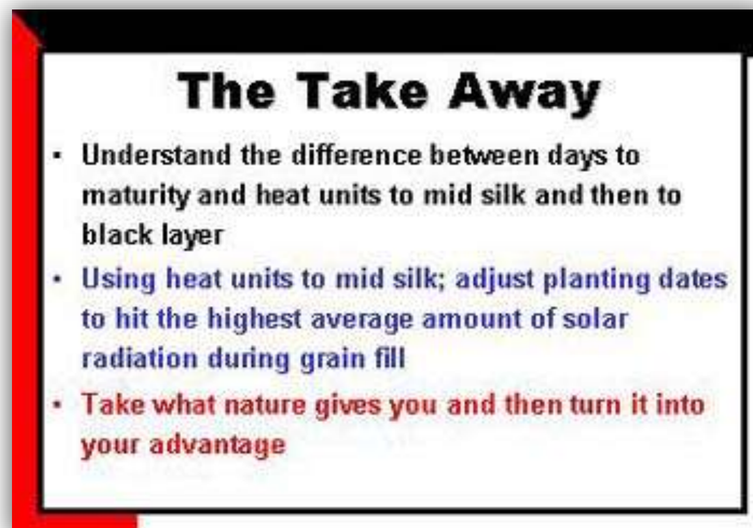

2005soldays gen yield012

Crop Management to Reach the Genetic Yield Potential of Hybrid Corn

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2005soldays gen yield013

Crop Management to Reach the Genetic Yield Potential of Hybrid Corn

- Genetic yield potential is the yield of a well adapted hybrid when soil and crop management eliminate all stresses due to abiotic (water, nutrients) and biotic (weeds, insects, disease) factors
- When pests are controlled, it depends mostly on:
  - –solar radiation and temperature
  - –optimization of hybrid maturity and plant density
  - –Adequate and timely N supply
- Profit maximization typically occurs at 85-90% of genetic yield potential
- Requires sites with reasonable soil quality (no hard pan or barrier to root penetration, good soil structure, lack of toxicities—salinity, alkalinity, acidity)

2005soldays gen yield014

Hybrid Maturity x Density x N Fertilizer Management Demonstration Plots

- Short (92d) vs later maturity (112d) hybrids
- 28k vs 38k seed drop
- Two N management treatments
  - –One dose: 200 lb N/ac before planting
  - –Gradual supply (50 lb N/ac in four splits): before planting, 5/23, 6/13, and 7/4
- General field management
  - –Planted on April 27
  - –One section no-till, another tilled and disced
  - –Ammonium nitrate N source
  - –Optimal irrigation and pest control

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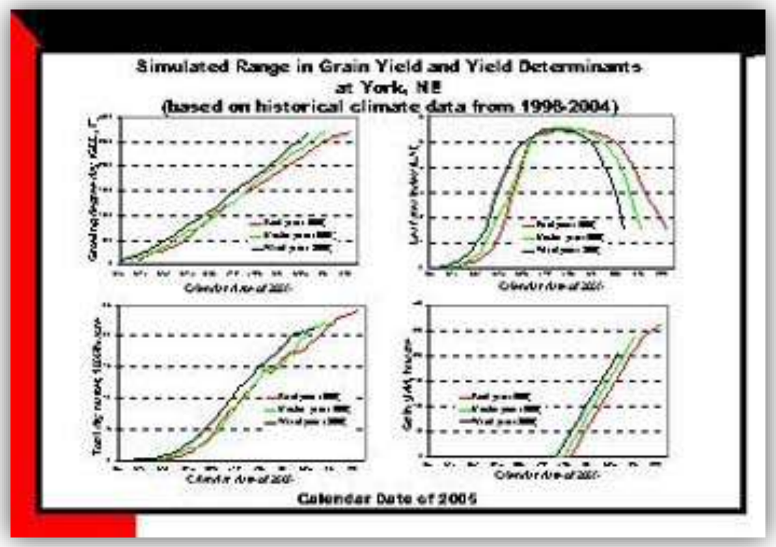

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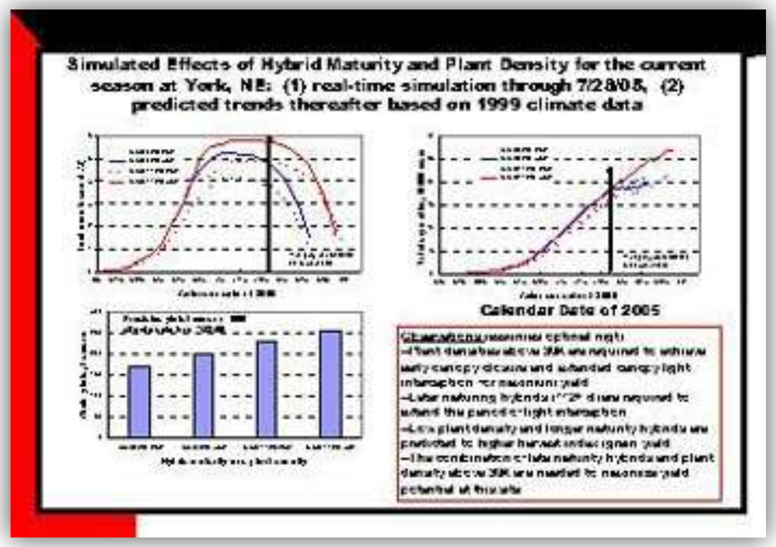

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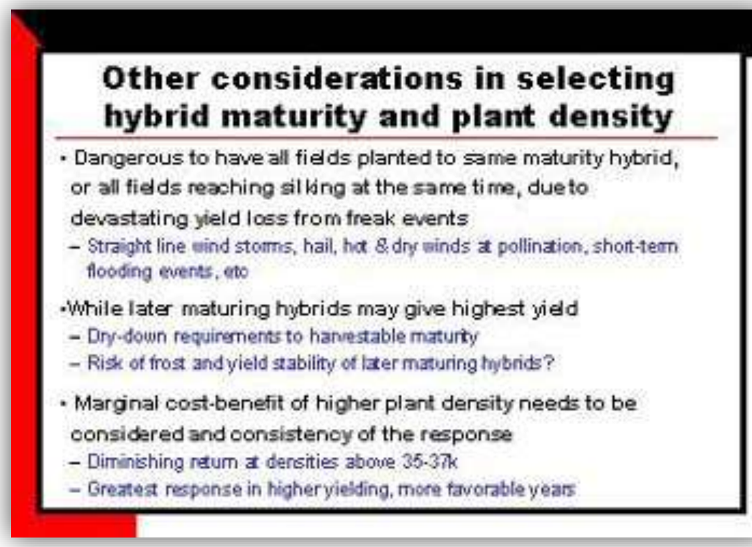

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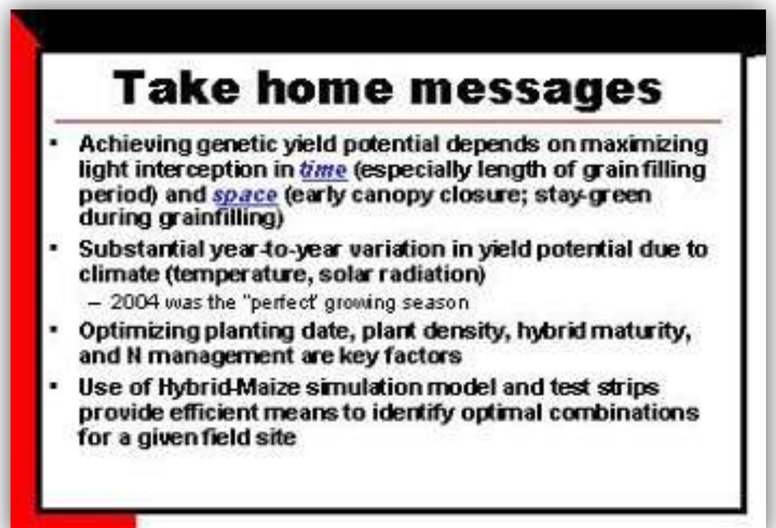

2005soldays gen yield019