Title: Determining Corn Hybrid Maturity

Experiment: 01GD Trial ID 1411 Year: 1999

Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery

Location: Chippewa Falls, WI County: Chippewa

Supported By: HATCH

Site Information

Field: Previous Crop: Soybean Soil Type: Sattre

Soil Test: Date: N/A pH 5.9 OM (%) 3.1 P (ppm) 140 K (ppm) 150

Plot Management

Tillage Operations: Fall Chisel Plow Field Cultivated 1 Cultivation

Rate Ibs/A: Analysis: Date: Preplant: 28-0-0 112 lbs/A N/A Fertilizer: 6-24-24 150 4 /28/99 Starter: Post plant : N/A N/A N/A

Manure: none

Herbicide: Harness @ 1.6pt/A Insecticide: none

Hornet @ 2.4 oz/A **Hybrid:** See Factors

Irrigation: none

Planting Date: 4/28/99 Planting Depth: 1.5" Row Width: 30"

Target Plant Density: 29000 plants per acre Planting Method: Kinze Plot Planter

Harvest Date: 9/28/99 Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB Replications: 3

Plot Size Seeded: 22'x5' Experiment Size: 0.12 A

Harvest Plot Size: 22'x 5' Harvest Plant Density: 28400 plants per acre

Factors/Treatments:

Hybrids:

Carhart's CX1080A
Dekalb DK405
Dekalb DK551BTY
DS Stealth1412
Garst 8830
Gutwein 2400
Jung 2285

Kaltenberg K4606
Pioneer 3751
Pioneer 39J69
Renk RK232
Renk RK232
Renk RK599IMI
Trelay 1001
Wensman Max78

Results: Table E-17.

Table E-17. Determining Corn Hybrid Maturity - Comparison of Hybrids Chippewa Falls, WI -1999

	Dolotivo	Croin	Croin	Toot	
Hybrid	Relative maturity	Grain yield	Grain moisture	Test weight	Lodging
,		bu/A	%	lbs/bu	%
Pioneer 39J69	80	123	18.1	61.5	1.0
Trelay 1001	80	170	18.3	60.7	0.0
Jung 2285	85	171	21.2	56.2	0.5
Renk RK232	85	174	17.7	57.5	0.5
Dekalb DK405	90	172	18.9	56.9	1.0
Wensman Max78	90	172	20.0	56.6	0.0
Garst 8830	95	195	25.4	52.3	0.0
Kaltenberg K4606	95	191	21.3	53.2	1.9
Pioneer 3751	100	191	22.2	53.7	0.5
Renk RK599IMI	100	191	25.1	52.7	0.0
Dekalb DK551BTY	105	203	30.1	52.5	0.0
Gutwein 2400	105	186	26.0	54.2	0.5
Carhart's CX1080A	110	202	31.2	52.7	1.9
DS Stealth1412	110	192	32.3	52.0	0.0
Mean		181	23.4	55.2	0.5
Probability(%)					
Hybrid (H)		0.1	0.0	0.0	13.6
LSD(0.10)					
Hybrid (H)		24	3.4	2.4	NS
<u>CV(%)</u>		9	10	3	166

Title: Determining Corn Hybrid Maturity

Experiment: 01GD Trial ID 1408 Year: 1999

Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery, D. Weiersma

Location: County: Wood

Supported By: HATCH

Site Information

Field: 3 Previous Crop: Alfalfa Soil Type: Loyal

Soil Test: Date: N/A pH 6.7 OM (%) 3.3 P (ppm) 53 K (ppm) 169

Plot Management

Tillage Operations: Moldboard Plow Field Cultivator 1 Cultivation

Rate Ibs/A: Analysis: Date: N/A Preplant: N/A N/A Fertilizer: 6-24-24 150 5 /11/99 Starter: Post plant : 33-0-0 136 5 /1 /99

Manure: 30 Tons

Herbicide: Harness @ 2pt/A Insecticide: none

Hornet @ 4 oz/A **Hybrid**: See Factors

Irrigation: none

Planting Date:5/11/99Planting Depth:1.5"Row Width:30"Target Plant Density:29000plants per acrePlanting Method:Kinze Plot Planter

Harvest Date: 10/19/99 Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB Replications: 3

Plot Size Seeded: 22'x5' Experiment Size: 0.12 A

Harvest Plot Size: 22' x 5' Harvest Plant Density: 27000 plants per acre

Factors/Treatments:

Hybrids:

Carhart's CX1080A Kaltenberg K4606
Dekalb DK405 Pioneer 3751
Dekalb DK551BTY Pioneer 39J69
DS Stealth1412 Renk RK232
Garst 8830 Renk RK599IMI
Gutwein 2400 Trelay 1001
Jung 2285 Wensman Max78

Results: Table E-18.

Table E-18. Determining Corn Hybrid Maturity - Comparison of Hybrids Marshfield, WI - 1999

	Relative	Grain	Grain	Test	
Hybrid	maturity	yield	moisture	weight	Lodging
		bu/A	%	lbs/bu	%
Pioneer 39J69	80	136	19.8	59.5	9.5
Trelay 1001	80	144	22.7	57.8	0.5
Jung 2285	85	157	25.4	55.0	1.9
Renk RK232	85	177	22.3	55.7	0.9
Dekalb DK405	90	198	23.3	53.2	0.9
Wensman Max78	90	162	27.2	54.4	0.0
Garst 8830	95	180	28.1	51.3	0.5
Kaltenberg K4606	95	183	24.3	52.2	0.5
Pioneer 3751	100	200	26.7	52.3	0.0
Renk RK599IMI	100	177	28.7	51.6	1.4
Dekalb DK551BTY	105	206	32.6	51.5	0.5
Gutwein 2400	105	208	33.5	51.0	4.3
Carhart's CX1080A	110	210	33.4	50.9	0.0
DS Stealth1412	110	180	35.8	50.9	3.3
Mean		180	27.4	53.4	1.7
Probability(%)					
Hybrid (H)		0.0	0.0	0.0	7.8
LSD(0.10)					
Hybrid (H)		18	0.6	0.6	1.7
CV(%)		7	2	1	186

Title: Determining Corn Hybrid Maturity

Experiment: 01GD Trial ID 1409 Year: 1999

Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery

Location: Seymour, WI **County:** Outagamie

Supported By: HATCH

Site Information

Field: Previous Crop: Soybean Soil Type:

Soil Test: Date: N/A pH 7.3 OM (%) 3.5 P (ppm) 22 K (ppm) 125

Plot Management

Tillage Operations: Fall Chisel Plow Soil Finisher 1 Cultivation

Rate Ibs/A: Analysis: Date: N/A N/A N/A Preplant: Fertilizer: 6-24-24 150 5 /4 /99 Starter: Post plant : N/A N/A N/A

Manure: 9000 gal

Herbicide: Northstar @ 4 oz/A Insecticide: none

Irrigation: none Hybrid: See Factors

Planting Date: 5/3/99 Planting Depth: 1.5" Row Width: 30"

Target Plant Density:29000plants per acrePlanting Method:Kinze Plot Planter

Harvest Date: 10/12/99 Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB Replications: 3

Plot Size Seeded: 22'x5' Experiment Size: 0.12 A

Harvest Plot Size: 22'x 5' Harvest Plant Density: 28400 plants per acre

Factors/Treatments:

Hybrids:

Carhart's CX1080A Kaltenberg K4606
Dekalb DK405 Pioneer 3751
Dekalb DK551BTY Pioneer 39J69
DS Stealth1412 Renk RK232
Garst 8830 Renk RK599IMI
Gutwein 2400 Trelay 1001
Jung 2285 Wensman Max78

Results: Table E-19.

Table E-19. Determining Corn Hybrid Maturity - Comparison of Hybrids Seymour, WI -1999

	Relative	Grain	Grain	Test	
Hybrid	maturity	yield	moisture	weight	Lodging
		bu/A	%	lbs/bu	%
Pioneer 39J69	80	123	15.1	64.0	33.1
Trelay 1001	80	155	16.9	63.3	1.4
Jung 2285	85	175	19.6	61.2	3.3
Renk RK232	85	174	16.3	62.2	2.8
Dekalb DK405	90	188	15.6	59.9	5.2
Wensman Max78	90	172	18.6	60.2	0.9
Garst 8830	95	178	21.0	56.1	2.8
Kaltenberg K4606	95	171	15.3	59.7	12.3
Pioneer 3751	100	192	18.5	59.1	2.8
Renk RK599IMI	100	175	23.3	56.0	6.6
Dekalb DK551BTY	105	227	24.9	56.2	0.9
Gutwein 2400	105	207	23.9	54.4	9.0
Carhart's CX1080A	110	202	27.8	53.9	6.1
DS Stealth1412	110	188	30.2	54.2	2.8
Mean		180	20.5	58.6	6.5
Probability(%)					
Hybrid (H)		0.6	0.0	0.0	0.0
LSD(0.10)					
Hybrid (H)		33	2.1	0.9	7.5
<u>CV(%)</u>		13	8	1	85

Title: Determining Corn Hybrid Maturity

Experiment: 01GD Trial ID 1410 Year: 1999

Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery, S. Hendrickson

Location: Valders, WI County: Manitowoc

Supported By: HATCH

Site Information

Field: Previous Crop: Alfalfa Soil Type: Kewannee

Soil Test: Date: N/A pH 7.2 OM (%) 3.1 P (ppm) 49 K (ppm) 155

Plot Management

Tillage Operations: Moldboard Plow Field Cultivated 1 Cultivation

 Analysis:
 Rate lbs/A:
 Date:

 Fertilizer:
 Preplant :
 N/A
 N/A
 N/A

 Starter :
 6-24-24
 150
 5 /3 /9

 Starter:
 6-24-24
 150
 5 /3 /99

 Post plant:
 N/A
 N/A
 N/A

Manure: 12000 gal

Herbicide: Accent @ .33 oz/A Insecticide: none

Northstar @ 4 oz/A **Hybrid:** See Factors

Irrigation: none

Planting Date: 5/3/99 Planting Depth: 1.5" Row Width: 30"

Target Plant Density: 29000 plants per acre Planting Method: Kinze Plot Planter

Harvest Date: 10/13/99 Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB Replications: 3

Plot Size Seeded: 22'x5' Experiment Size: 0.12 A

Harvest Plot Size: 22'x 5' Harvest Plant Density: 29300 plants per acre

Factors/Treatments:

Hybrids:

Carhart's CX1080A
Dekalb DK405
Dekalb DK551BTY
DS Stealth1412
Garst 8830
Gutwein 2400
Jung 2285

Kaltenberg K4606
Pioneer 3751
Pioneer 39J69
Renk RK232
Renk RK232
Renk RK599IMI
Trelay 1001
Wensman Max78

Results: Table E-20.

Table E-20. Determining Corn Hybrid Maturity - Comparison of Hybrids Valders, WI -1999

	Relative	Grain	Grain	Test	
Hybrid	maturity	yield	moisture	weight	Lodging
		bu/A	%	lbs/bu	%
Pioneer 39J69	80	107	15.9	61.1	35.5
	80			61.3	
Trelay 1001		154	17.4		0.0
Jung 2285	85	171	18.3	60.5	1.4
Renk RK232	85	177	18.2	60.3	0.5
Dekalb DK405	90	203	16.8	58.6	1.4
Wensman Max78	90	189	18.4	59.0	0.0
Garst 8830	95	204	19.4	54.4	6.1
Kaltenberg K4606	95	199	18.3	57.9	10.4
Pioneer 3751	100	202	18.1	57.4	1.9
Renk RK599IMI	100	224	21.8	54.9	0.9
Dekalb DK551BTY	105	234	24.5	55.1	0.5
Gutwein 2400	105	230	21.6	54.7	4.7
Carhart's CX1080A	110	237	20.8	54.4	3.8
DS Stealth1412	110	224	25.4	54.0	0.5
Mean		197	19.6	57.4	4.8
Probability(%)					
Hybrid (H)		0.0	0.0	0.0	0.0
LSD(0.10)					
Hybrid (H)		13	1.2	1.2	5.2
<u>CV(%)</u>		5	5	2	78

Title: Determining Corn Hybrid Maturity

Experiment: 01GD Trial ID 1407 Year: 1999

Personnel: J. G. Lauer, K.D. Kohn, P.J. Flannery

Location: Arlington, WI County: Columbia

Supported By: HATCH

Site Information

Field: 427 Previous Crop: Soybean Soil Type: Plano

Soil Test: Date: N/A pH 6.2 OM (%) 3.9 P (ppm) 50 K (ppm) 190

Plot Management

Tillage Operations: Fall Chisel Plow Soil Finisher 1 Cultivation

Rate Ibs/A: Analysis: Date: 46-0-0 325 4 /23/99 Preplant: Fertilizer: 6-24-24 150 4 /29/99 Starter: Post plant : N/A N/A N/A

Manure: none

Herbicide: Frontier @ 1.5 pt/A Insecticide: none

Bladex @ 2.2 lb/A **Hybrid:** See Factors Buctril @ 1.5 pt/A

Irrigation: none

Planting Date: 4/26/99 Planting Depth: 1.5" Row Width: 30"

Target Plant Density: 29000 plants per acre Planting Method: Kinze Plot Planter

Harvest Date: 10/6/99 Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB Replications: 3

Plot Size Seeded: 22'x5' Experiment Size: 0.15 A

Harvest Plot Size: 22' x 2.5' Harvest Plant Density: 28630 plants per acre

Factors/Treatments:

Hybrids:

Carhart's CX1080A
Dekalb DK405
Dekalb DK551BTY
Desalb DK551BTY
DS Stealth1412
Garst 8830
Gutwein 2400
Jung 2285

Kaltenberg K4606
Pioneer 3751
Pioneer 39J69
Renk RK232
Renk RK232
Renk RK599IMI
Trelay 1001
Wensman Max78

Results: Table E-21 and E-22.

Table E-21. Determining Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI -1999

						Plant											
	Relative	Grain	Grain	Test		Height	50%			Ker	nel Mi	k on E	ay of	Year			
Hybrid	maturity	yield	moisture	weight	Lodging	doy 243	Silk	232	236	239	243	246	250	256	260	264	267
		bu/A	%	lb/bu	%	inches	day of year										
Pioneer 39J69	80	157	17.0	64.4	2.3	85.3	163	70.0	36.7	35.0	18.3	8.3	1.7	0.0	0.0	0.0	0.0
Trelay 1001	80	165	16.7	64.7	0.0	83.0	167	86.7	53.3	48.3	26.7	15.0	0.0	0.0	0.0	0.0	0.0
Jung 2285	85	180	17.8	62.3	0.0	85.3	169	88.3	63.3	50.0	53.3	41.7	15.0	0.0	0.0	0.0	0.0
Renk RK232	85	206	16.3	61.5	0.5	91.0	171	100	60.0	63.3	48.3	48.3	16.7	0.0	0.0	0.0	0.0
Dekalb DK405	90	208	16.4	61.1	0.9	91.7	167	96.7	63.3	58.3	50.0	30.0	23.3	1.7	0.0	0.0	0.0
Wensman Max78	90	199	17.1	60.8	0.5	90.7	169	91.7	83.3	68.3	68.3	56.7	36.7	11.7	0.0	0.0	0.0
Garst 8830	95	224	18.2	59.2	0.5	92.7	171	100	76.7	63.3	61.7	50.0	35.0	8.3	5.0	1.7	0.0
Kaltenberg K4606	95	225	18.6	58.1	0.5	97.3	168	100	53.3	65.0	51.7	53.3	33.3	15.0	5.0	0.0	0.0
Pioneer 3751	100	226	18.6	57.5	0.0	93.7	169	96.7	76.7	66.7	65.0	56.7	35.0	5.0	0.0	0.0	0.0
Renk RK599IMI	100	223	18.8	59.8	0.9	94.3	171	100	80.0	58.3	53.3	53.3	36.7	5.0	0.0	0.0	0.0
Dekalb DK551BTY	105	274	25.4	57.3	0.0	103.3	171	100	80.0	71.7	68.3	56.7	50.0	28.3	20.0	8.3	1.7
Gutwein 2400	105	278	23.3	56.4	0.0	103.7	172	100	86.7	91.7	66.7	58.3	38.3	18.3	13.3	3.3	1.7
Carhart's CX1080A	110	271	23.5	56.9	1.4	105.3	172	100	100	100	65.0	60.0	36.7	16.7	10.0	3.3	0.0
DS Stealth1412	110	269	28.5	54.8	0.0	101.3	173	100	96.7	96.7	83.3	75.0	60.0	38.3	31.7	16.7	3.3
Mean	95	222	19.7	59.6	0.5	94.2	170	95.0	72.1	66.9	55.7	47.4	29.9	10.6	6.1	2.4	0.5
Probability(%)																	
Hybrid (H)		0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
LSD(0.10)																	
Hybrid (H)		27	0.8	1.5	NS	4.1	1	8.4	14.8	8.8	10.5	13.8	11.9	6.8	5.7	4.3	NS
CV(%)		9	3	2	166	3	4	6	15	9	14	21	28	46	67	130	277

Table E-22. Determining Corn Hybrid Maturity - Comparison of Hybrids Arlington, WI - 1999

			Le	af Developemen	t	
	Relative	Day of	Leaf	Hail adjusters	Total	- Plant
Hybrid	maturity	year	collars	method	leaves	height
						inches
Pioneer 39J69	80		8.3	10.5	17.2	58.8
Trelay 1001	80		9.3	11.0	16.4	60.0
Jung 2285	85		10.0	12.0	17.4	63.9
Renk RK232	85		9.8	11.6	16.8	66.9
Dekalb DK405	90		9.8	11.9	18.3	64.5
Wensman Max78	90		9.3	11.1	16.4	63.1
Garst 8830	95		10.0	11.8	17.5	65.1
Kaltenberg K4606	95		10.0	12.3	18.1	66.3
Pioneer 3751	100		10.1	11.9	17.7	65.7
Renk RK599IMI	100		10.1	12.3	18.3	66.7
Dekalb DK551BTY	105		10.2	12.0	17.5	66.3
Gutwein 2400	105		9.9	12.1	18.3	66.3
Carhart's CX1080A	110		10.0	12.3	18.3	68.7
DS Stealth1412	110		10.2	12.3	19.2	68.5
		147	2.3	4.6		10.4
		161	5.7	8.7		46.7
		176	9.1	12.0		103.1
		188	14.1	15.8	17.0	73.6
		203	18.5	18.4	18.5	94.1
Pioneer 39J69	80	147	2.2	4.8		8.7
Trelay 1001	80	147	2.5	4.5		10.0
Jung 2285	85	147	2.5	4.5		11.3
Renk RK232	85	147	2.5	4.8		11.7
Dekalb DK405	90	147	2.0	4.0		10.0
Wensman Max78	90	147	2.0	4.0		9.3
Garst 8830	95	147	2.7	4.5		10.0
Kaltenberg K4606	95	147	2.3	5.3		8.7
Pioneer 3751	100	147	2.7	4.7		11.7
Renk RK599IMI	100	147	2.3	4.8		11.7
Dekalb DK551BTY	105	147	2.5	4.7		10.0
Gutwein 2400	105	147	2.0	4.5		11.0
Carhart's CX1080A	110	147	2.5	4.8		11.3
DS Stealth1412	110	147	2.0	4.3		9.7

continued

Table E-22. Determining Corn Hybrid Maturity - Comparison of Hybrids Arlington, WI - 1999

	Leaf Developement						
	Relative	Day of	Leaf	Hail adjusters	Total	Plant	
Hybrid	maturity	year	collars	method	leaves	height	
	-	Ī				inches	
Pioneer 39J69	80	161	5.7	8.8		43.3	
Trelay 1001	80	161	5.0	7.3		42.3	
Jung 2285	85	161	5.5	8.8		44.0	
Renk RK232	85	161	5.8	8.5		50.3	
Dekalb DK405	90	161	5.2	8.3		44.3	
Wensman Max78	90	161	5.3	8.2		43.0	
Garst 8830	95	161	5.8	8.8		46.3	
Kaltenberg K4606	95	161	6.0	9.3		48.0	
Pioneer 3751	100	161	5.8	8.7		52.3	
Renk RK599IMI	100	161	5.8	9.0		47.7	
Dekalb DK551BTY	105	161	6.0	9.3		48.7	
Gutwein 2400	105	161	5.8	8.8		45.7	
Carhart's CX1080A	110	161	6.0	9.2		46.7	
DS Stealth1412	110	161	5.8	8.8		50.7	
Pioneer 39J69	80	176	9.3	12.0		104.7	
Trelay 1001	80	176	8.2	11.2		98.0	
Jung 2285	85	176	9.5	12.7		104.0	
Renk RK232	85	176	9.2	12.2		104.7	
Dekalb DK405	90	176	9.0	11.5		100.7	
Wensman Max78	90	176	8.3	11.3		101.7	
Garst 8830	95	176	9.3	12.0		105.0	
Kaltenberg K4606	95	176	9.3	12.0		101.3	
Pioneer 3751	100	176	9.5	12.2		100.0	
Renk RK599IMI	100	176	9.7	12.3		105.0	
Dekalb DK551BTY	105	176	9.7	12.3		105.0	
Gutwein 2400	105	176	9.0	12.0		100.7	
Carhart's CX1080A	110	176	9.2	12.2		106.7	
DS Stealth1412	110	176	8.8	11.8		106.0	
Pioneer 39J69	80	188	16.2	16.5	17.2	78.3	
Trelay 1001	80	188	13.5	14.7	15.7	67.7	
Jung 2285	85	188	15.0	16.2	17.2	72.7	
Renk RK232	85	188	13.8	14.8	16.0	74.3	
Dekalb DK405	90	188	13.3	16.0	17.0	71.7	
Wensman Max78	90	188	13.8	15.0	16.0	71.7	
Garst 8830	95	188	13.8	15.5	16.7	72.0	
Kaltenberg K4606	95	188	13.8	16.2	17.5	75.7	
Pioneer 3751	100	188	14.2	15.7	17.2	74.0	
Renk RK599IMI	100	188	13.7	16.2	17.3	73.0	
Dekalb DK551BTY	105	188	14.8	15.8	17.0	74.3	
Gutwein 2400	105	188	13.3	15.8	17.3	73.3	
Carhart's CX1080A	110	188	13.5	16.2	17.5	73.3	
DS Stealth1412	110	188	14.0	16.2	18.0	78.0	

continued

Table E-22. Determining Corn Hybrid Maturity - Comparison of Hybrids Arlington, WI - 1999

	Leaf Developement							
	Relative	Day of	Leaf	Hail adjusters	Total	Plant		
Hybrid	maturity	year	collars	method	leaves	height		
						inches		
Pioneer 39J69	80	203	16.2	16.5	17.2	78.3		
Trelay 1001	80	203	17.2	17.2	17.2	82.0		
Jung 2285	85	203	17.7	17.7	17.7	87.7		
Renk RK232	85	203	17.7	17.5	17.7	93.3		
Dekalb DK405	90	203	19.7	19.7	19.7	96.0		
Wensman Max78	90	203	16.8	16.8	16.8	89.7		
Garst 8830	95	203	18.3	18.3	18.3	92.0		
Kaltenberg K4606	95	203	18.7	18.7	18.7	98.0		
Pioneer 3751	100	203	18.2	18.2	18.2	90.7		
Renk RK599IMI	100	203	19.2	19.2	19.2	96.0		
Dekalb DK551BTY	105	203	18.0	18.0	18.0	93.7		
Gutwein 2400	105	203	19.3	19.2	19.3	100.7		
Carhart's CX1080A	110	203	19.0	19.0	19.0	105.3		
DS Stealth1412	110	203	20.3	20.3	20.3	98.3		
Mean			9.8	11.8	17.7	65.1		
Probability(%)								
Hybrid (H)			0.0	0.0	0.0	0.0		
Day Of Year (D)			0.0	0.0	0.1	0.0		
H x D			0.0	2.8	12.7	0.0		
LSD(0.10)								
Hybrid (H)			0.3	0.4	0.4	1.5		
Day Of Year (D)			0.2	0.2	0.1	1.0		
H x D			0.7	0.8	NS	3.4		
CV(%)			5	5	3	4		