Treatment Effects
for Measured Nashua Data

Nashua Treatment #s

1. No-till, corn-soybean rotation, applying 28% UAN to corn after LSNT(1993-1999)
2. No-till, corn-soybean rotation, single 28% UAN prior to corn planting(1990-1999)
3. Chisel plow, corn-soybean rotation, applying 28% UAN to corn after LSNT(1993-2003)
4. Chisel plow, corn-soybean rotation, single 28% UAN prior to corn planting(1990-2003)
5. Chisel plow, corn-soybean rotation, manure application prior to corn(1993-2003)

Nashua Treatment #s (2)

6 Chisel plow, corn-corn rotation, fall manure application(1993-1998)

7 Chisel plow, corn-corn rotation, single 28% UAN prior to planting(1990-1998)

8 No-till, corn-corn rotation, single 28% UAN prior to planting(1990-1992)

9 Moldboard plow, corn-corn rotation, single 28% UAN prior to planting(1990-1992)

10 Moldboard plow, corn-soybean rotation, single 28% UAN prior to corn planting(1990-1992)

Nashua Treatment #s (3)

11 Ridge till, corn-corn rotation, single 28% UAN prior to planting(1990-1992)

12 Ridge till, corn-soybean rotation, single 28% UAN prior to corn planting(1990-1992)

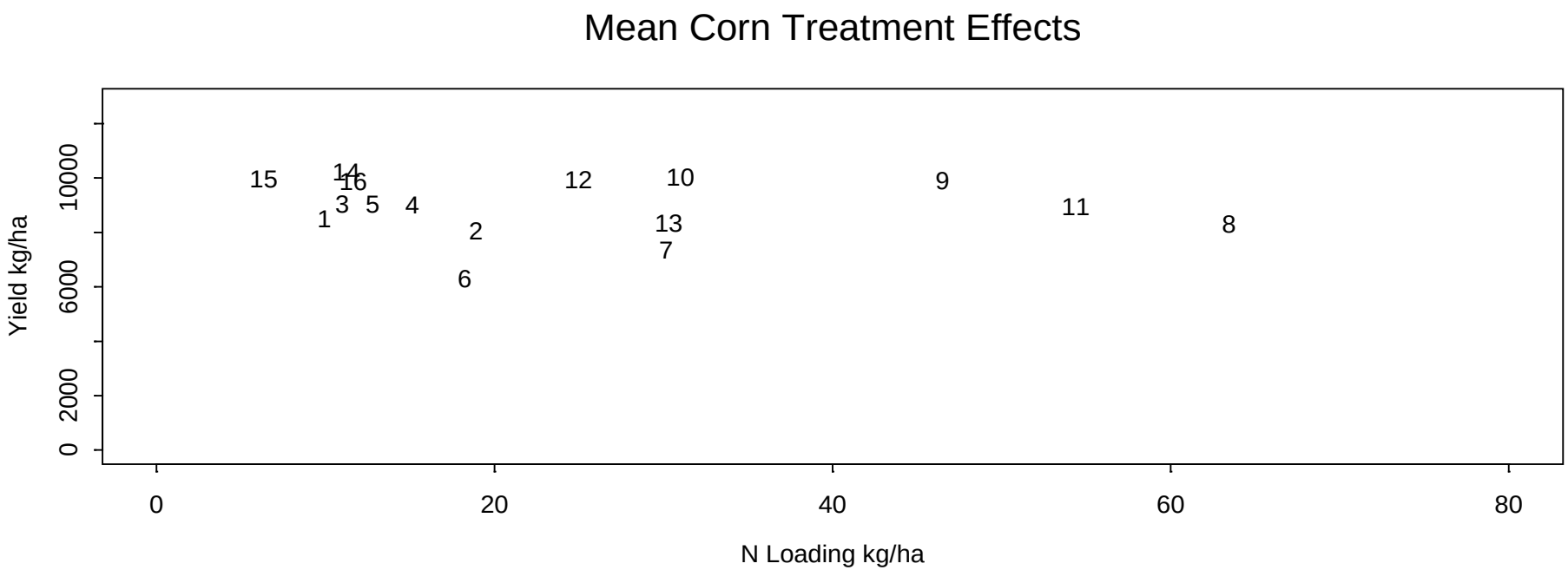
13 Chisel plow, corn-corn rotation, fall manure plus spring 28% UAN application(1999)

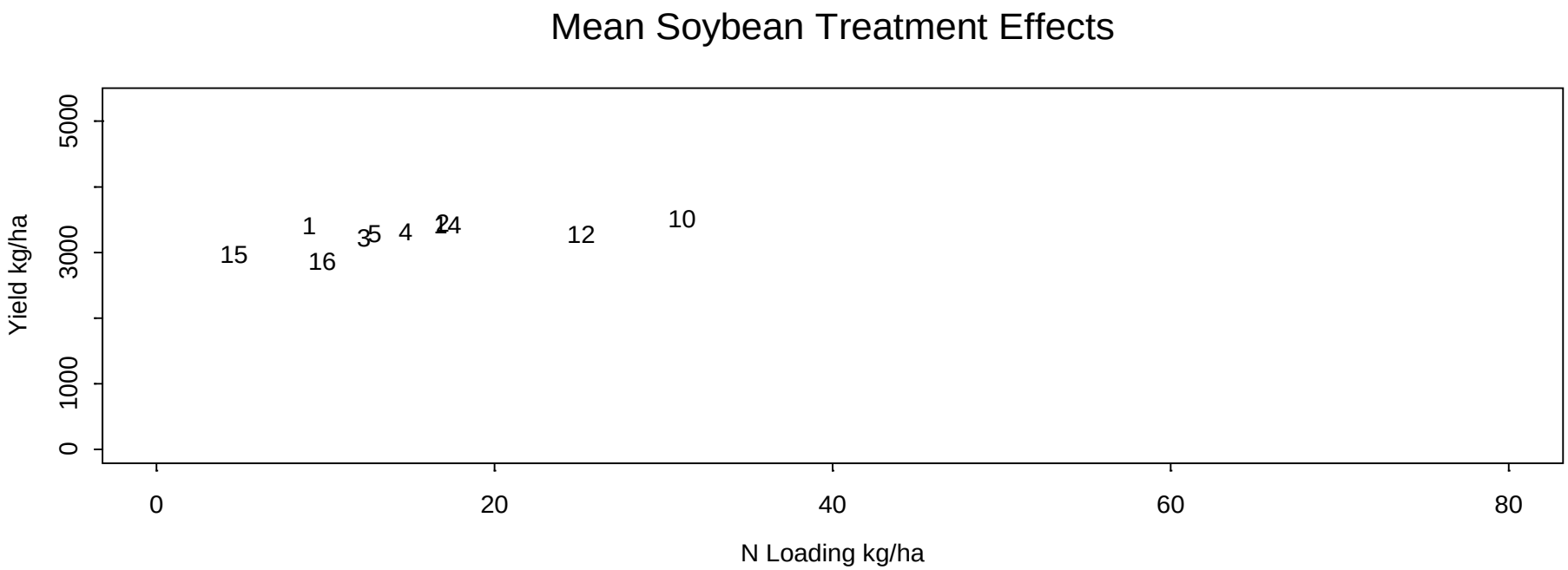
14 Chisel plow, corn-soybean rotation, fall manure applications prior to corn and soybean(2000-2003)

Nashua Treatment #s (4)

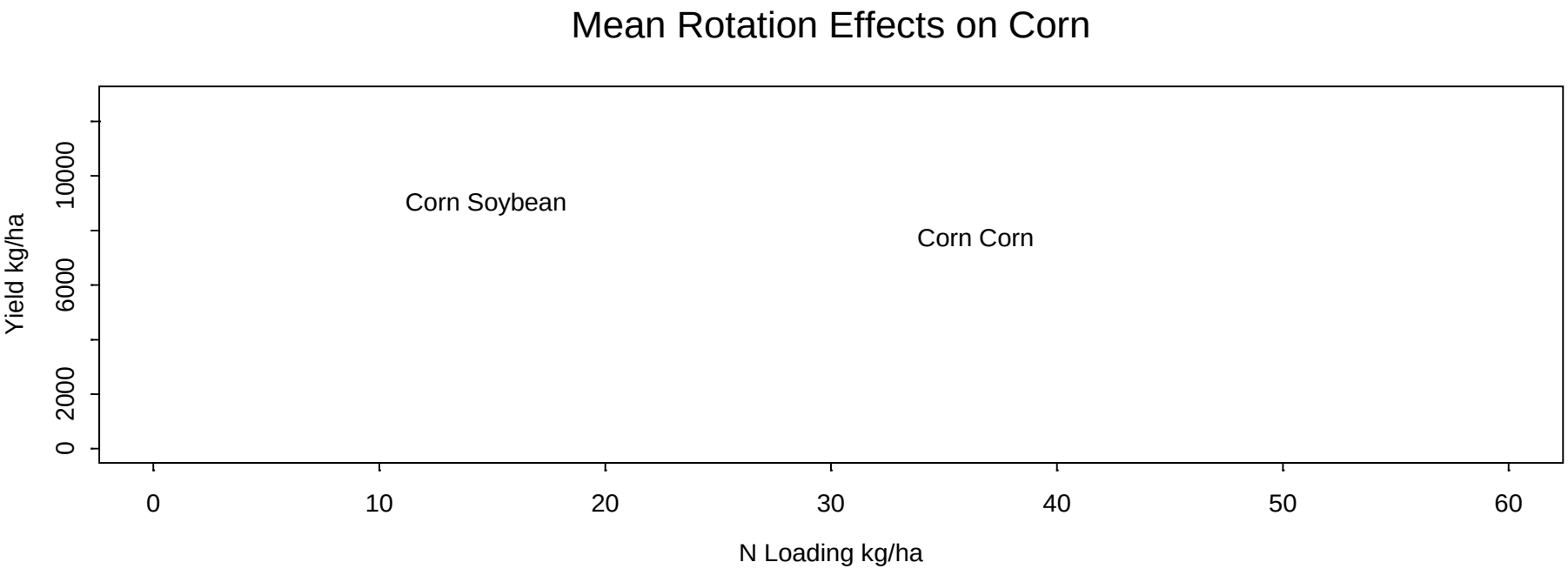
15 Chisel plow, corn-soybean rotation, fall manure plus spring 28% UAN applications for corn(2000-2003)

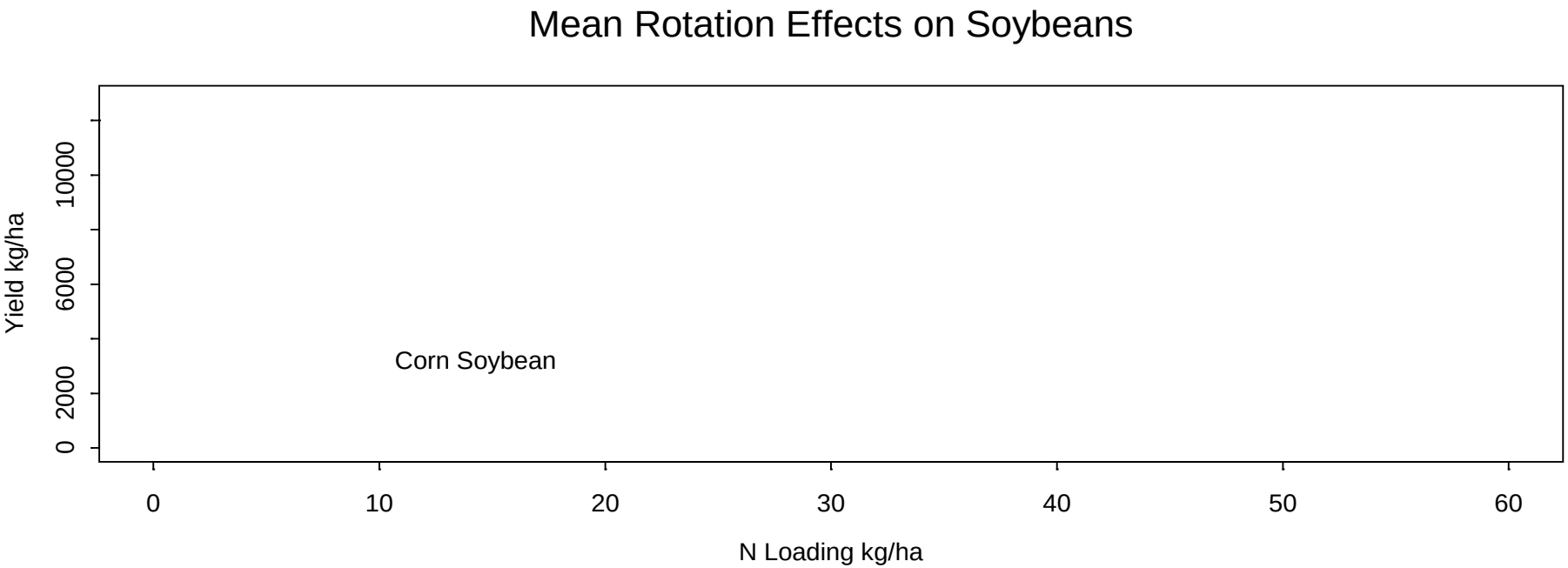
16 No-till, corn-soybean rotation, spring manure application to corn(2000-2003)

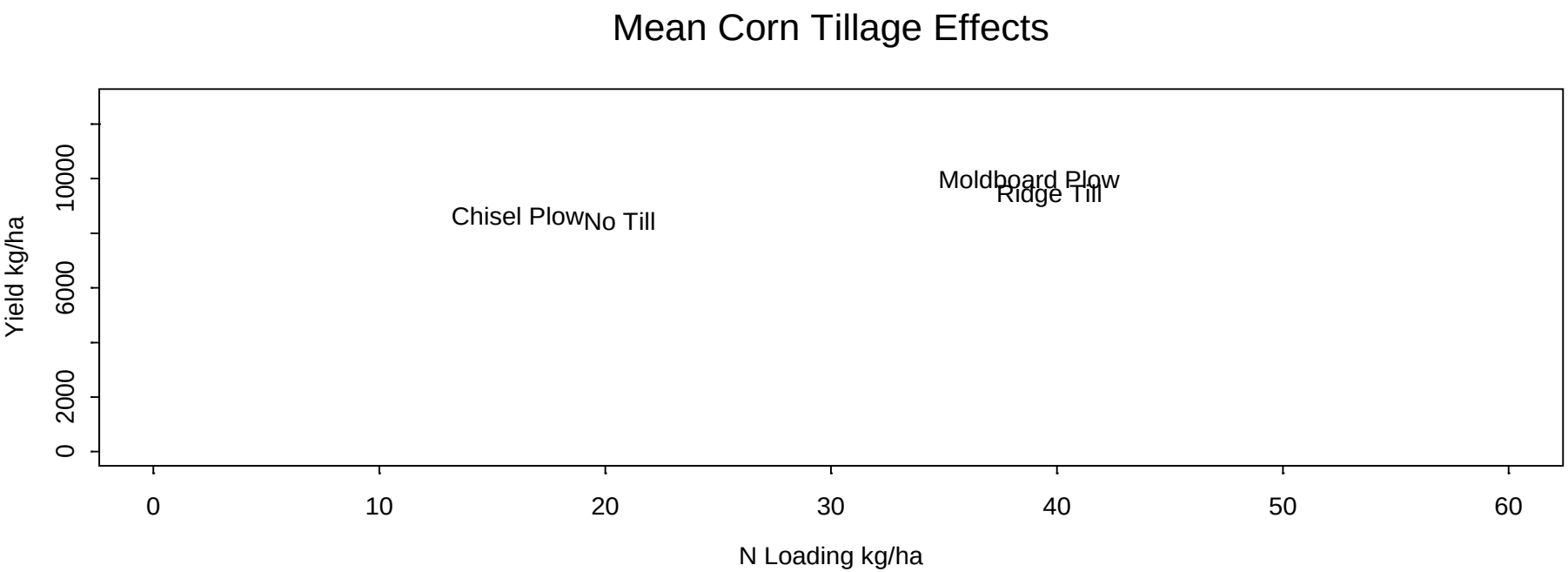

Mean Corn Treatment Effects
Yield kg/ha
0
2000
6000
10000
N Loading kg/ha
0
20
40
60
80
15
14
16
3
5
4
1
2
6
12
10
13
7
9
11
8

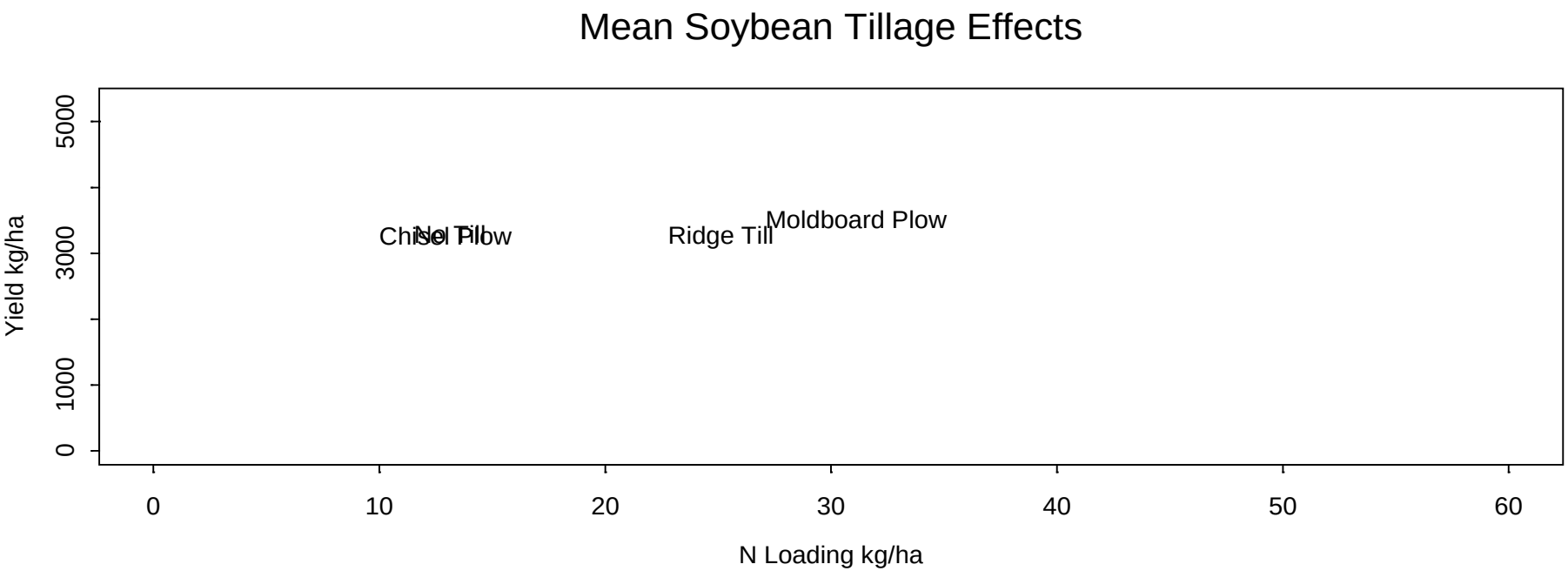

Mean Soybean Treatment Effects
Yield kg/ha
0
1000
3000
5000
N Loading kg/ha
0
20
40
60
80
15
1
16
3
5
4
2
4
12
10

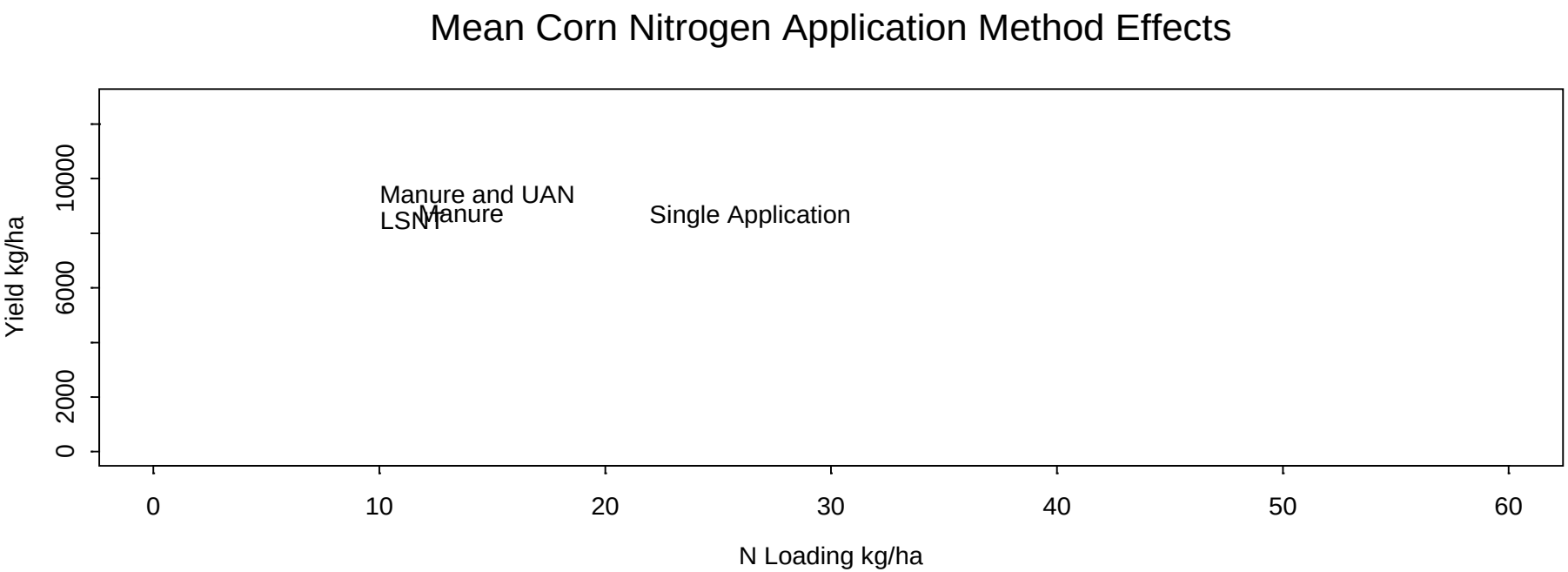
Summary Plots of Practice Effects

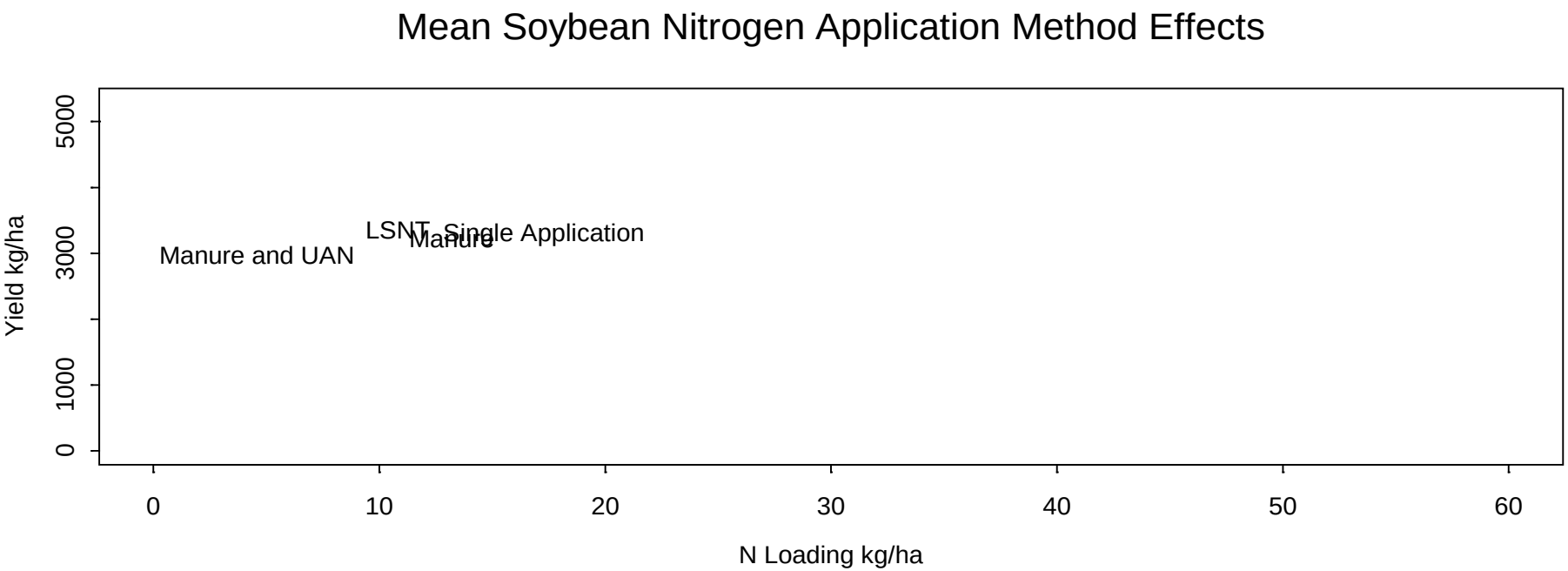

Mean Rotation Effects on Corn
Yield kg/ha
0
2000
6000
10000
Corn Soybean
Corn Corn
0
10
20
30
40
50
60
N Loading kg/ha


Mean Rotation Effects on Soybeans
Yield kg/ha
0
2000
6000
10000
Corn Soybean
0
10
20
30
40
50
60
N Loading kg/ha

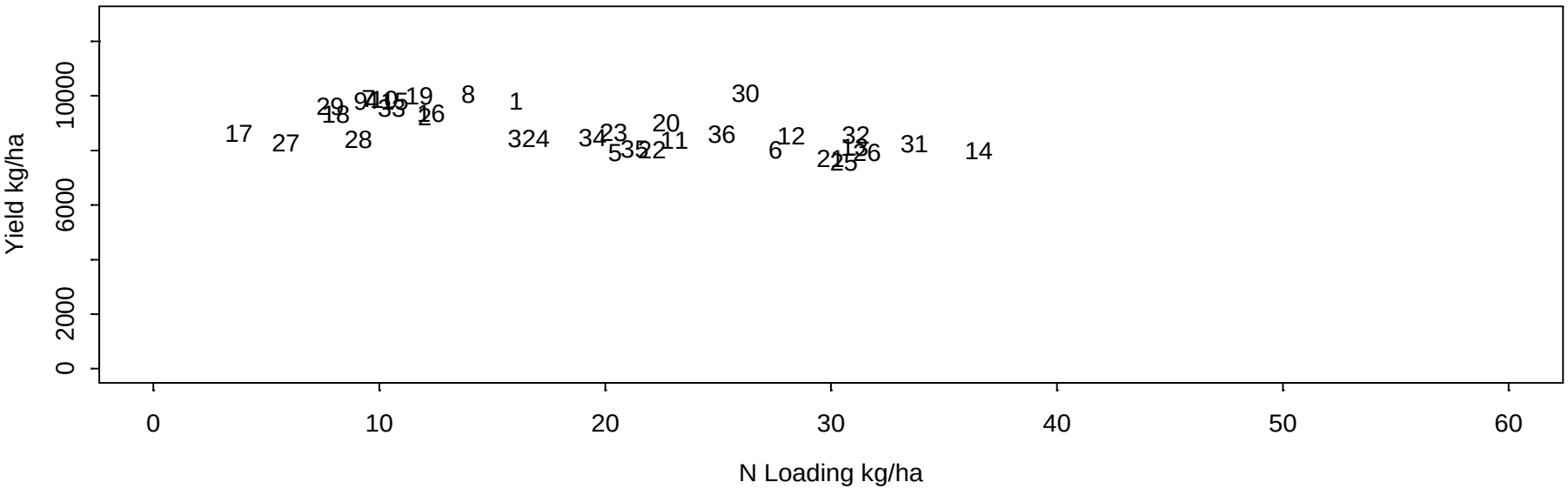

Mean Corn Tillage Effects
Yield kg/ha
0
2000
6000
10000
Chisel Plow
No Till
Moldboard Plow
Ridge Till
0
10
20
30
40
50
60
N Loading kg/ha


Mean Soybean Tillage Effects
Yield kg/ha
0
1000
3000
5000
Chisel Plow
No Till
Ridge Till
Moldboard Plow
0
10
20
30
40
50
60
N Loading kg/ha

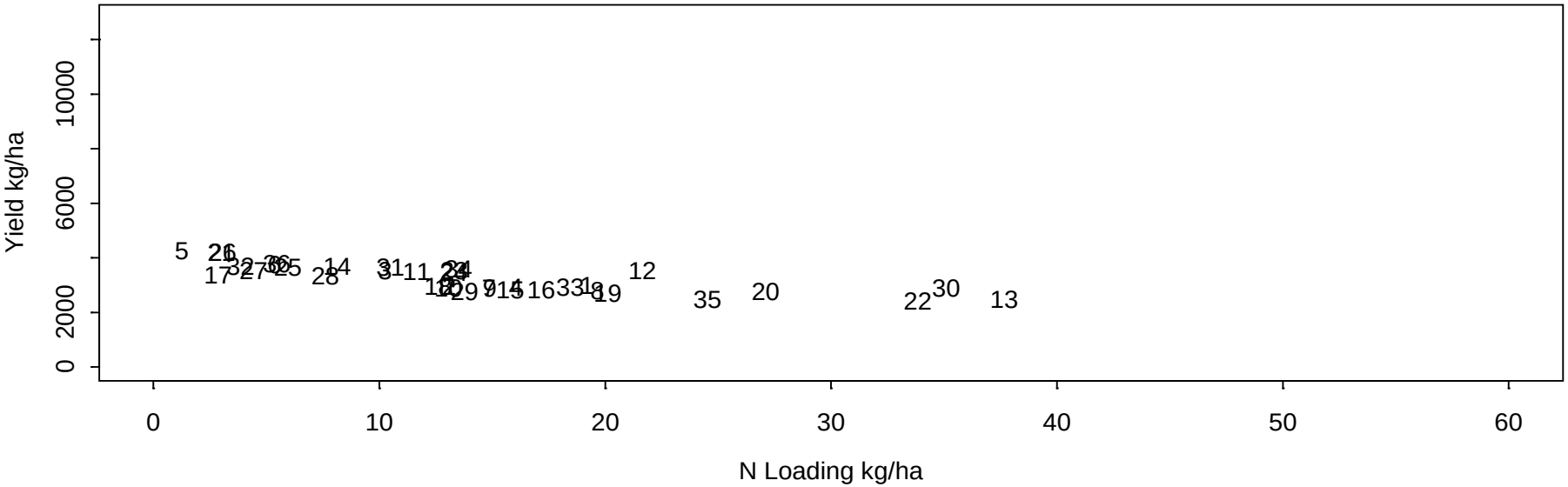

Mean Corn Nitrogen Application Method Effects
Yield kg/ha
0
2000
6000
10000
Manure and UAN
LSNT
Manure
Single Application
0
10
20
30
40
50
60
N Loading kg/ha


Mean Soybean Nitrogen Application Method Effects
Yield kg/ha
0
1000
3000
5000
LSNT
Single Application
Manure
Manure and UAN
0
10
20
30
40
50
60
N Loading kg/ha

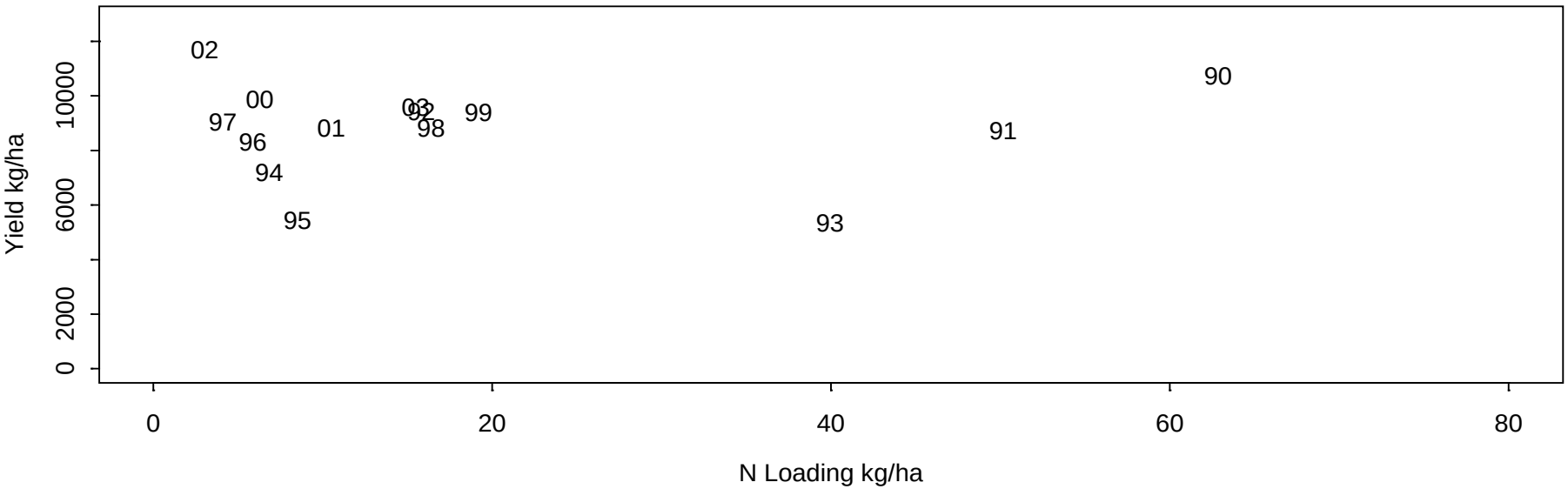
Mean Effects on Corn by Plot



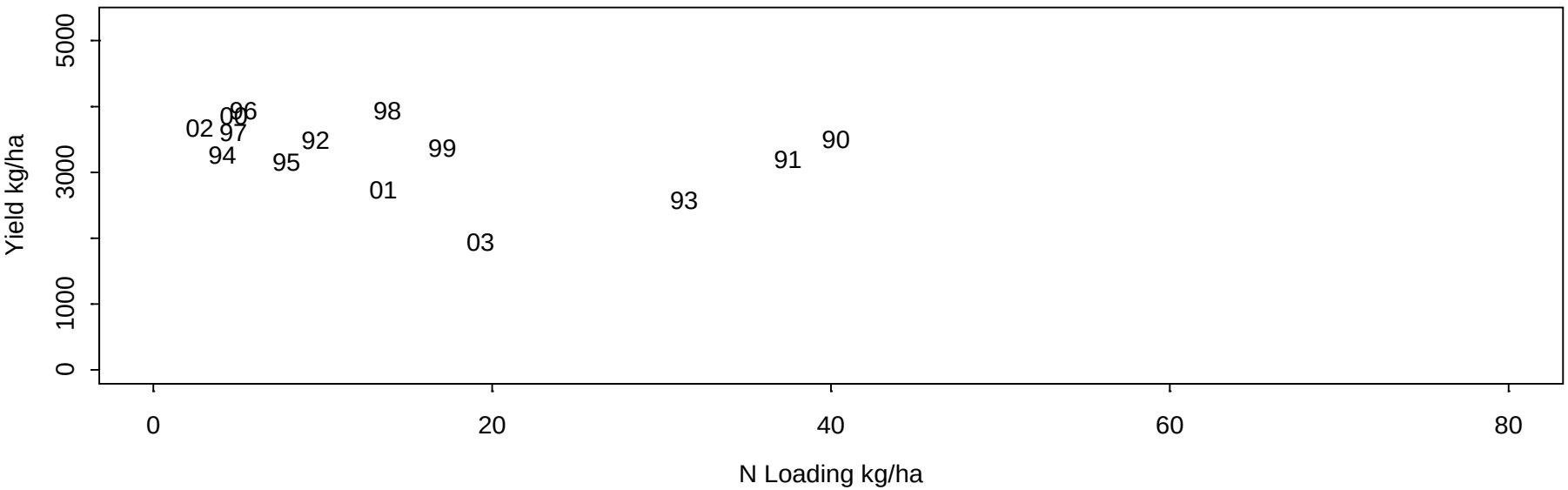
Mean Effects on Soybeans by Plot



Mean Effects on Corn by Year



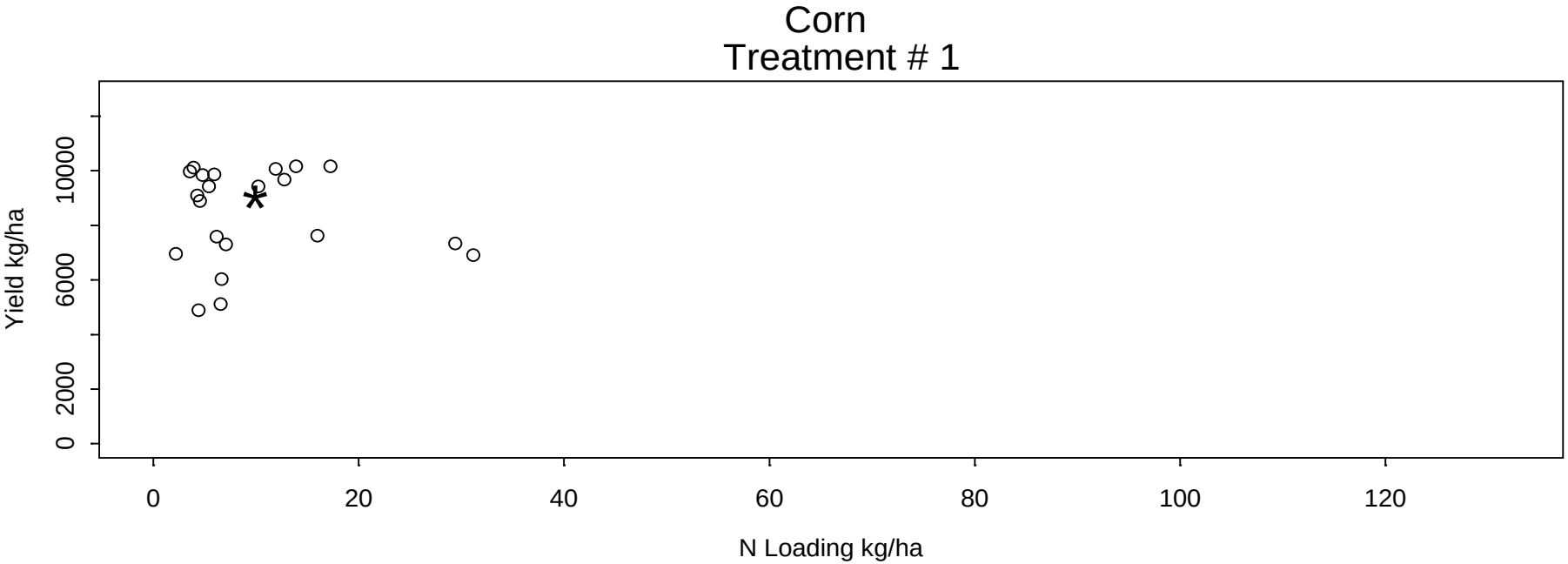
Mean Effects on Soybeans by Year

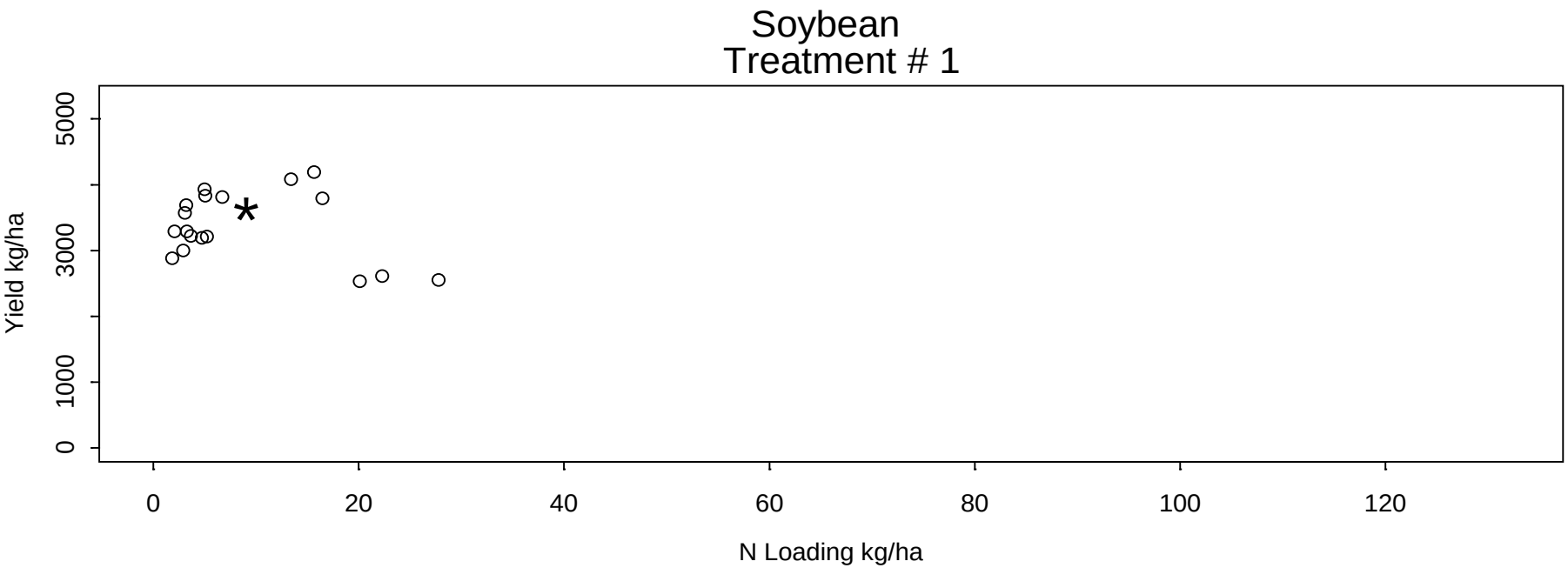


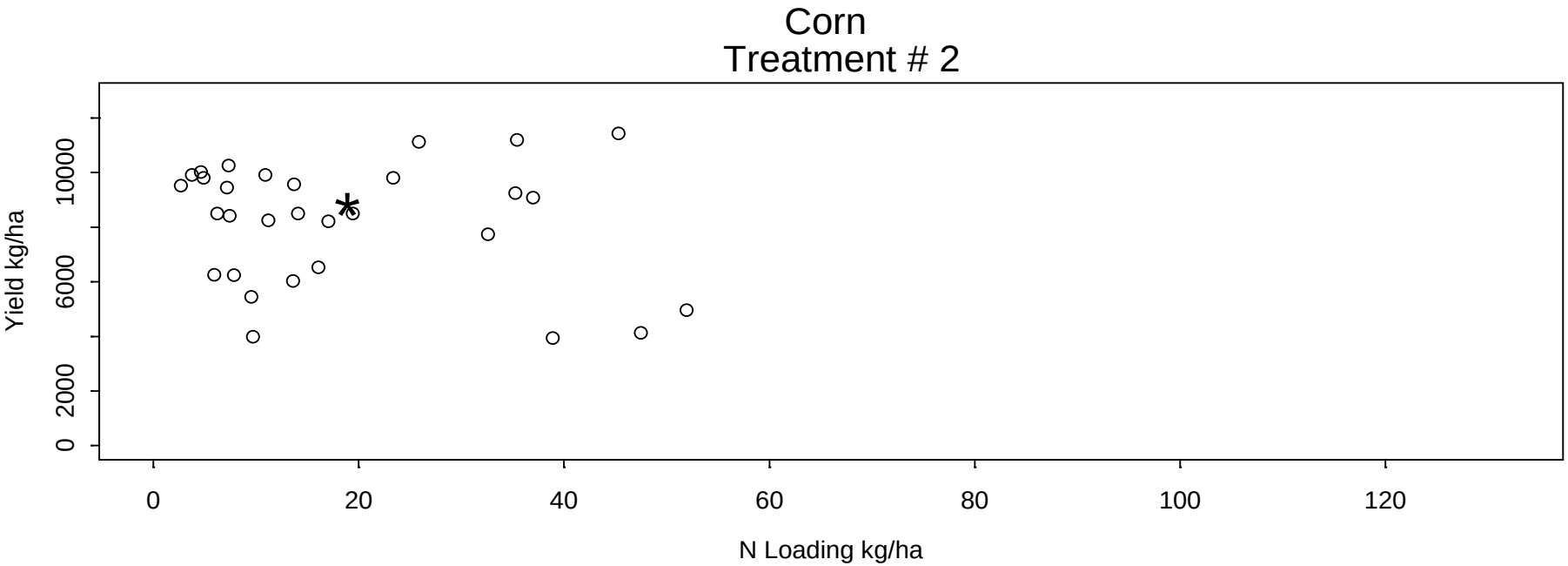
Treatment Effects

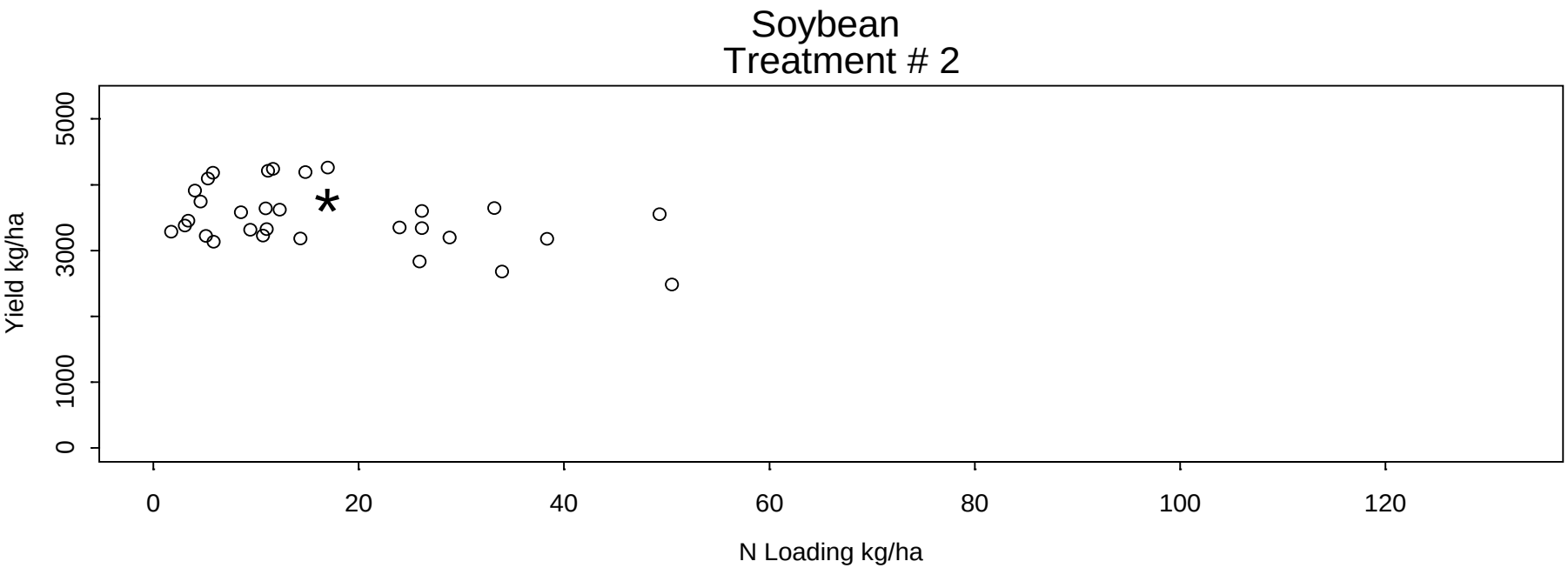
Each observation is plotted
[I'm not sure why Powerpoint converted single symbol into 2]

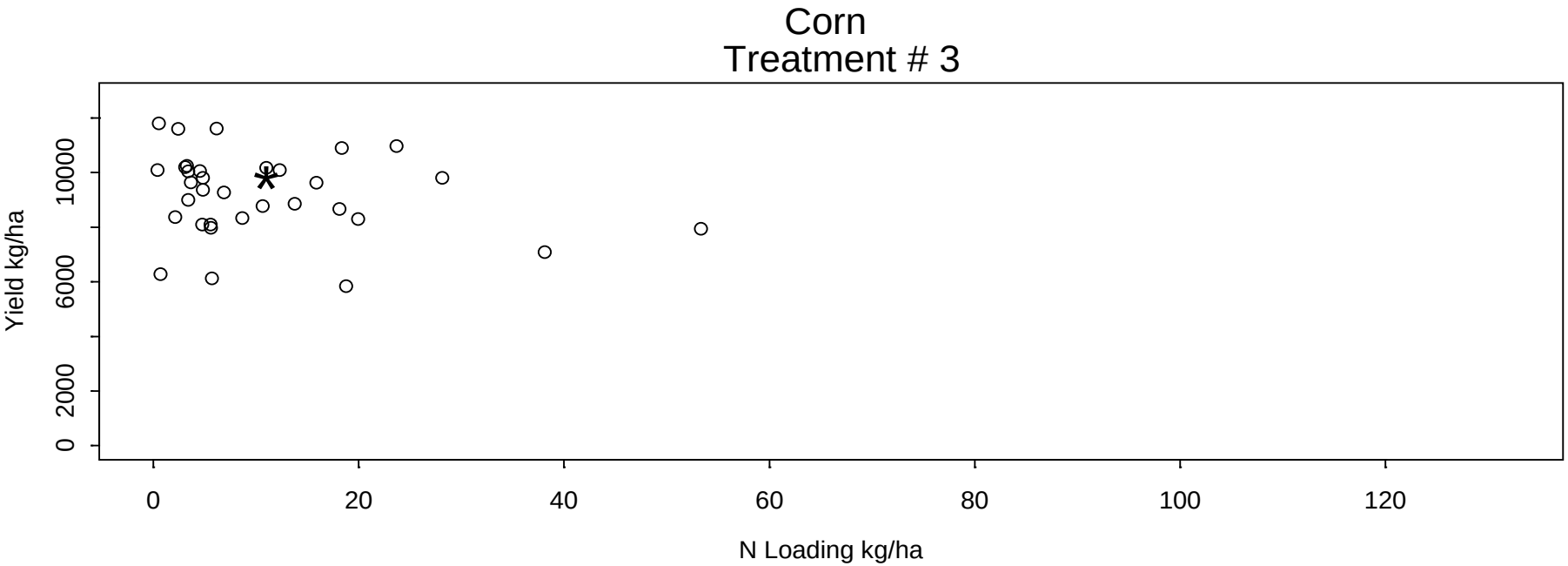
* indicates mean value

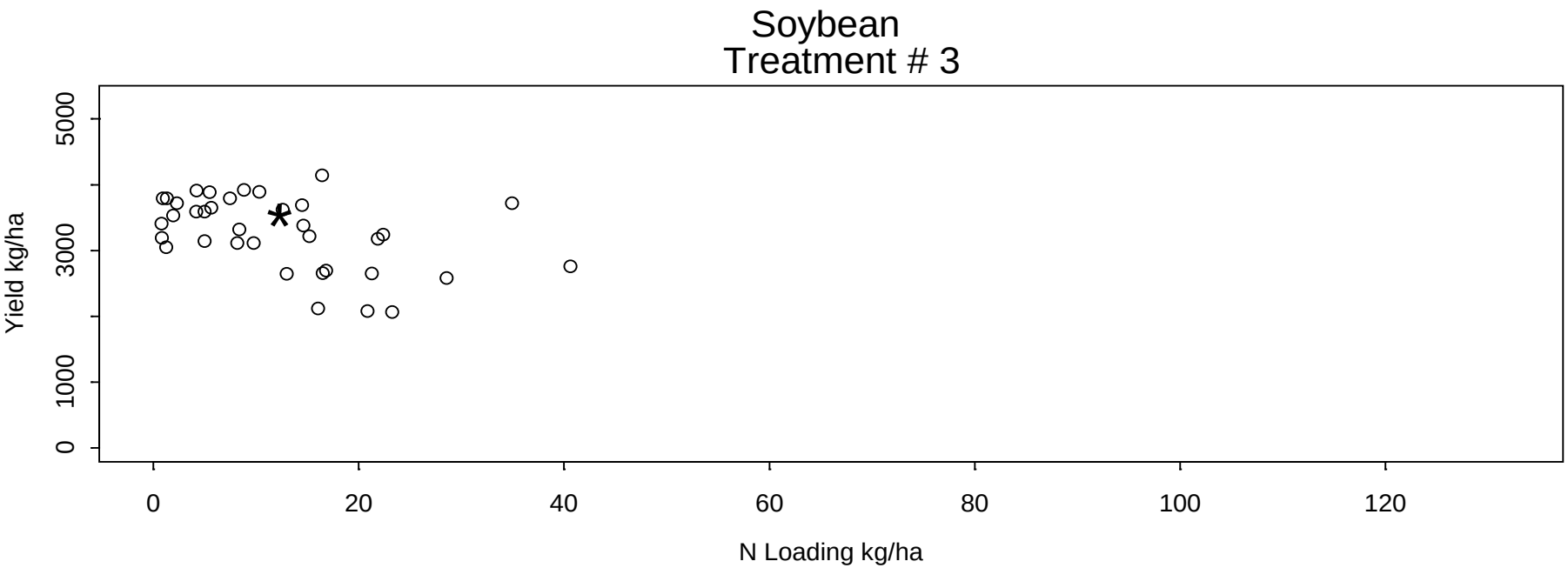

Corn
Treatment # 1
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

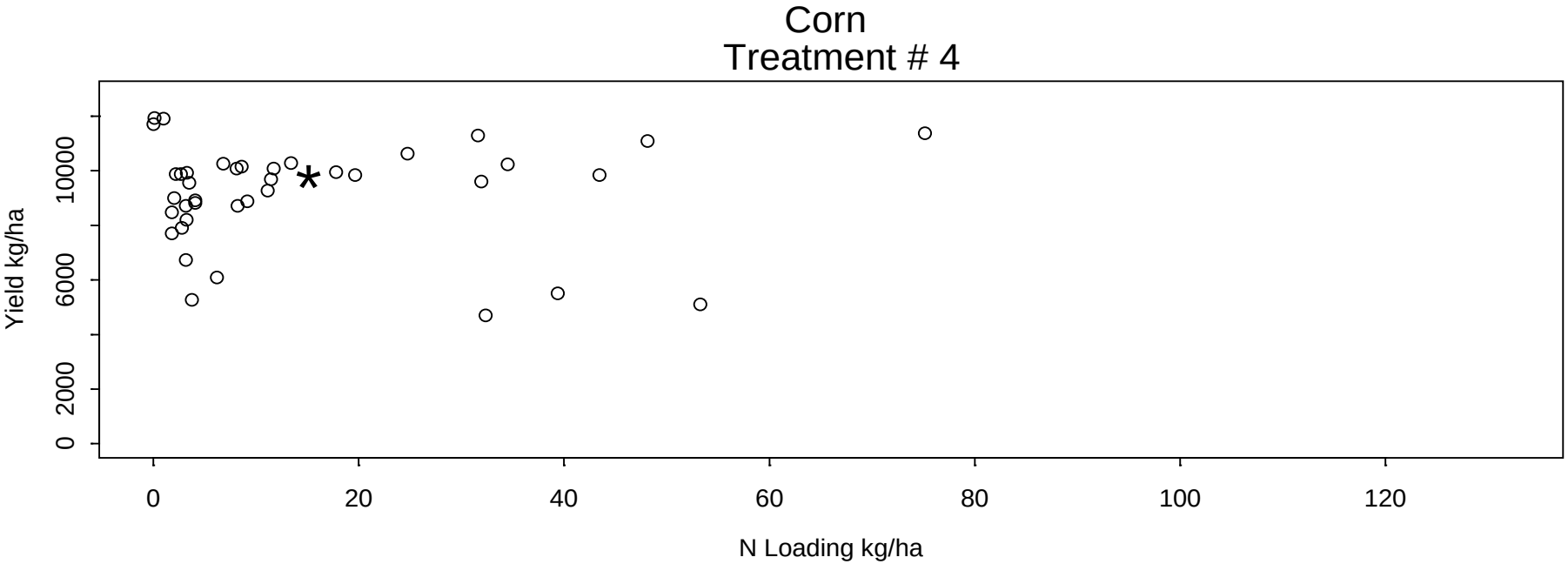

Soybean
Treatment # 1
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

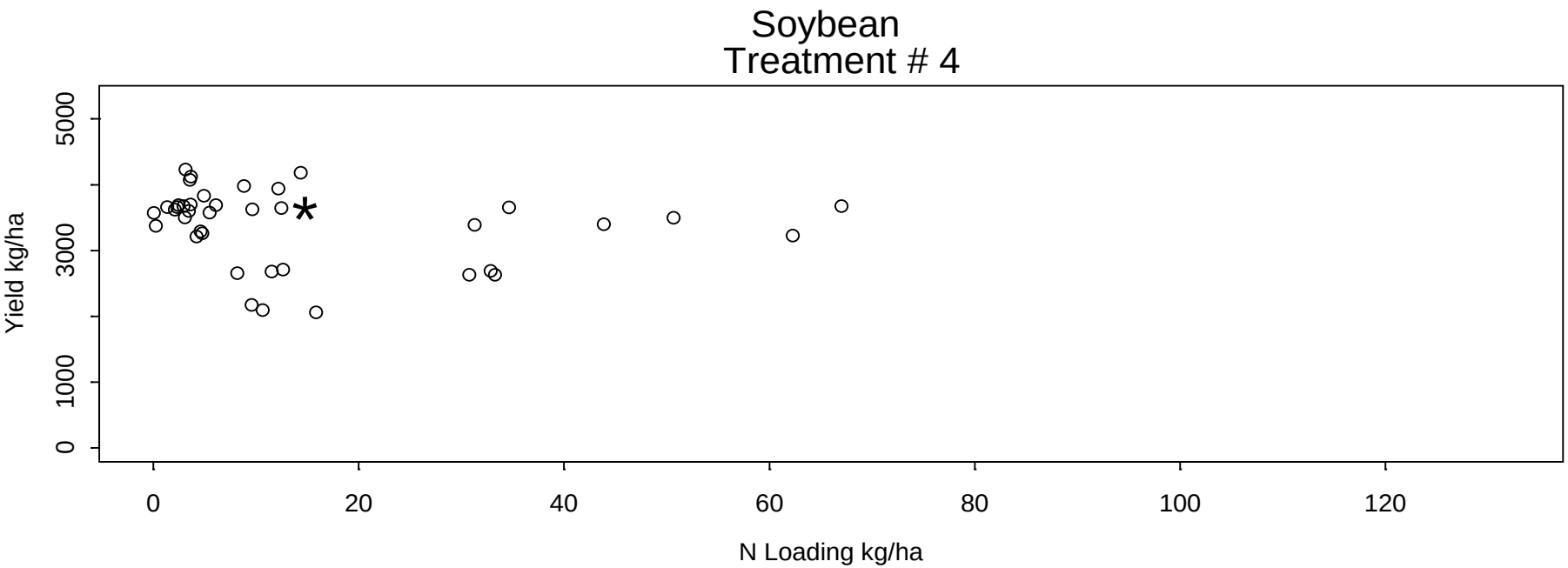

Corn
Treatment # 2
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

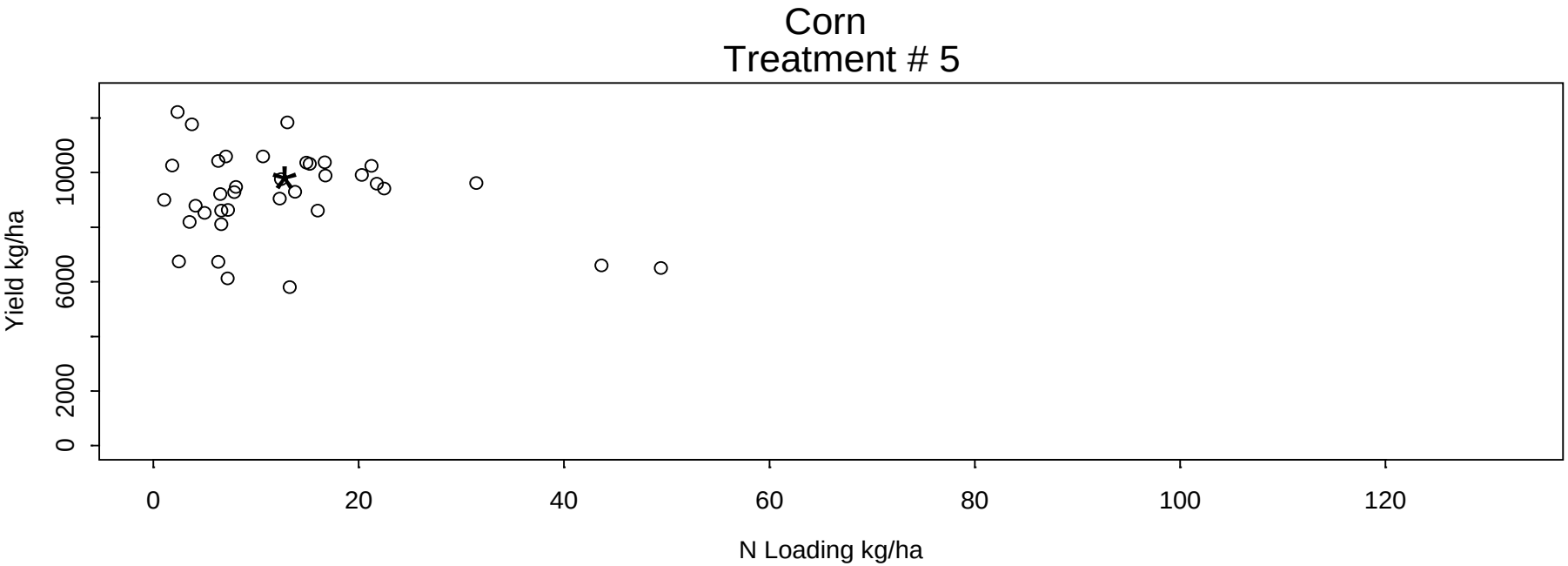

Soybean
Treatment # 2
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

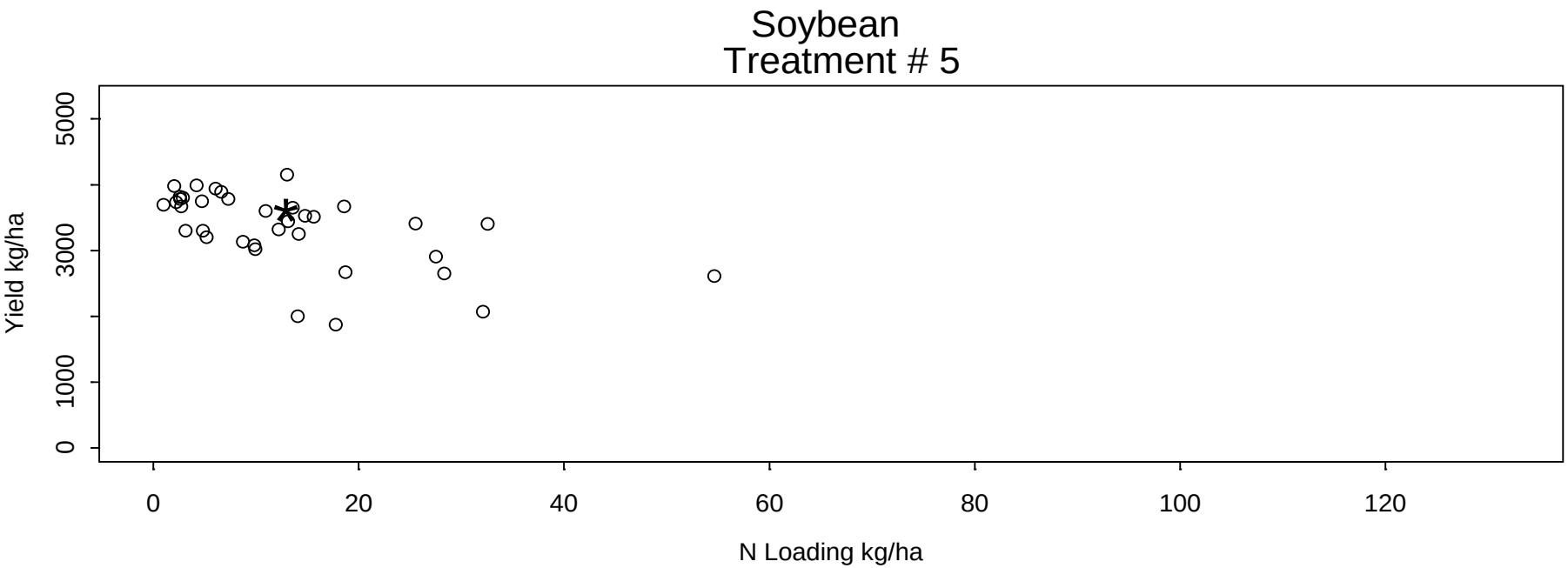

Corn
Treatment # 3
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

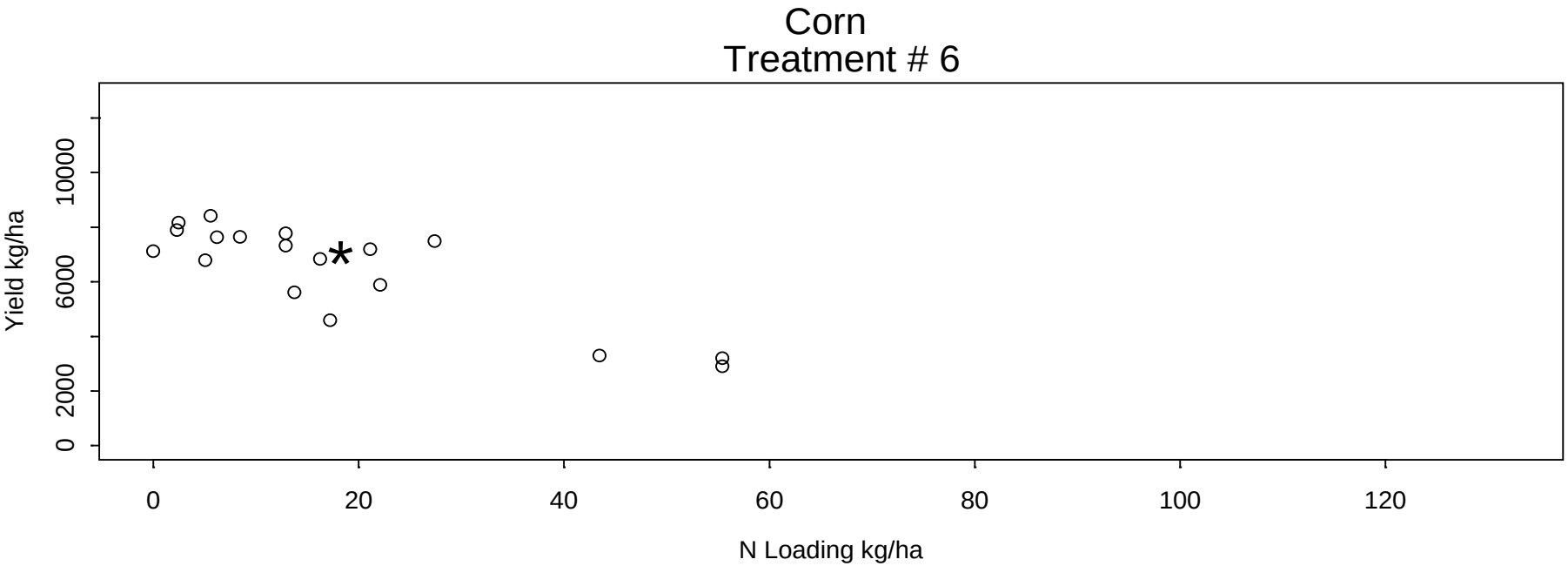

Soybean
Treatment # 3
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

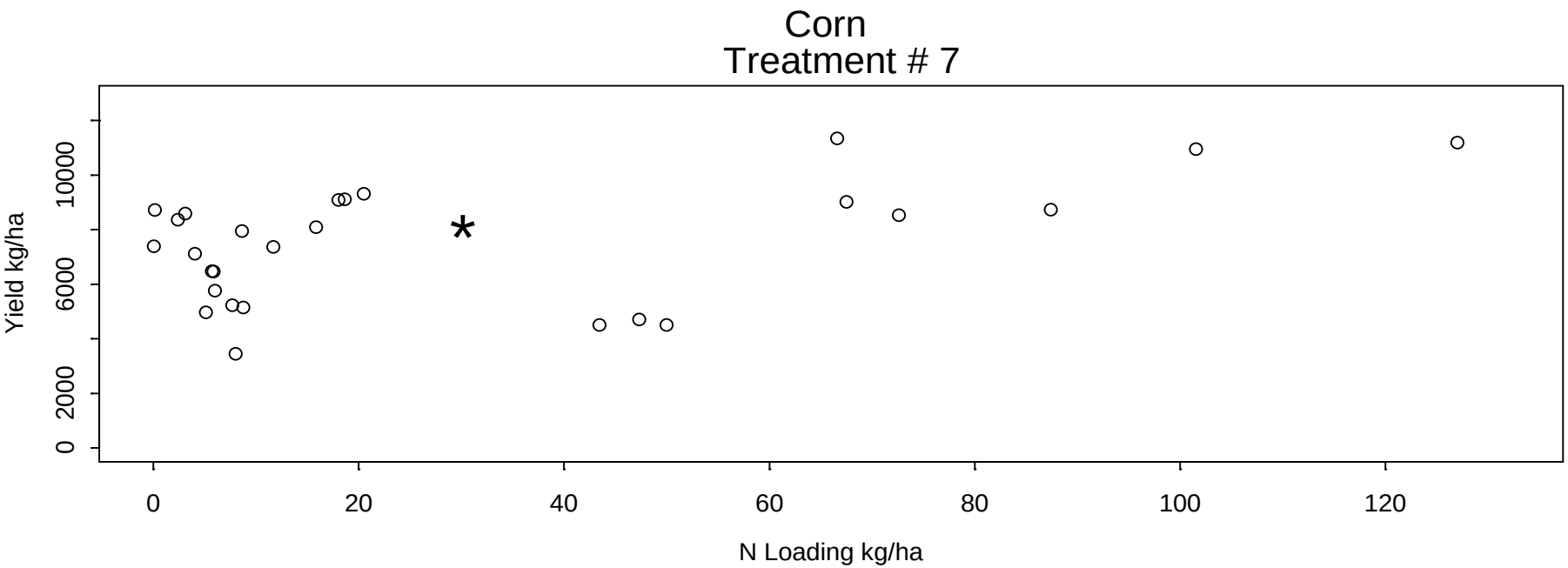

Corn
Treatment # 4
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

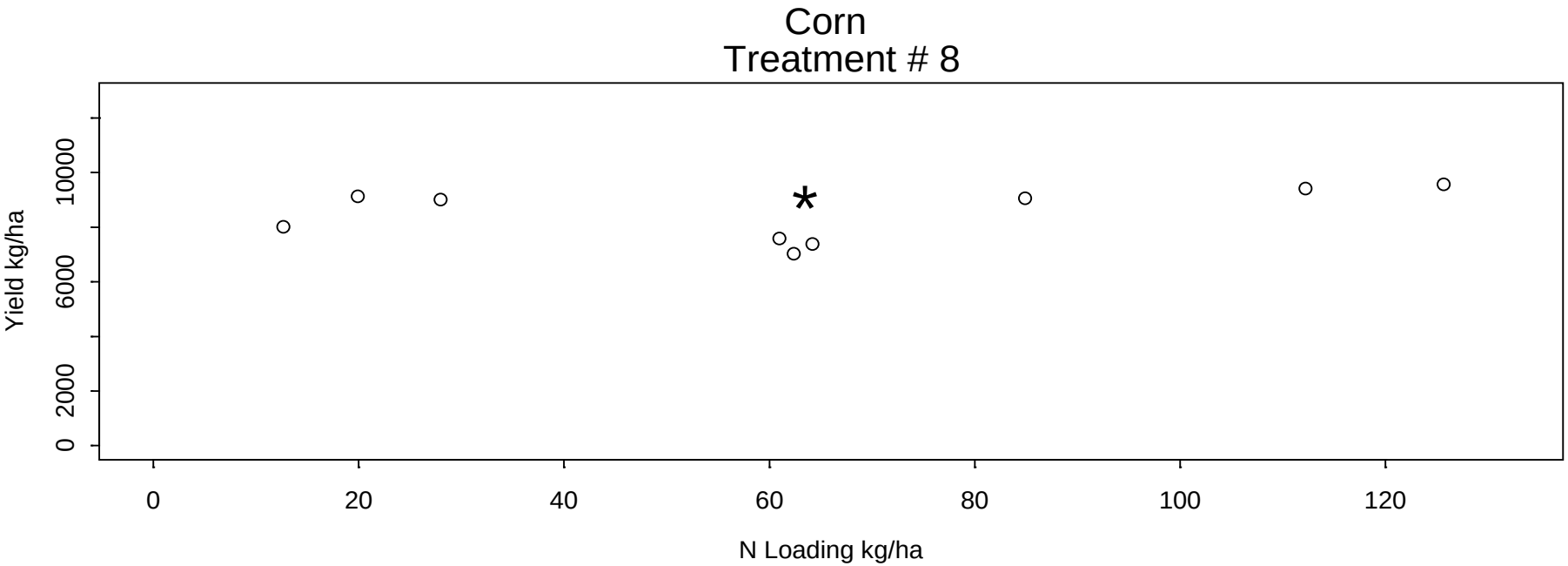

Soybean
Treatment # 4
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

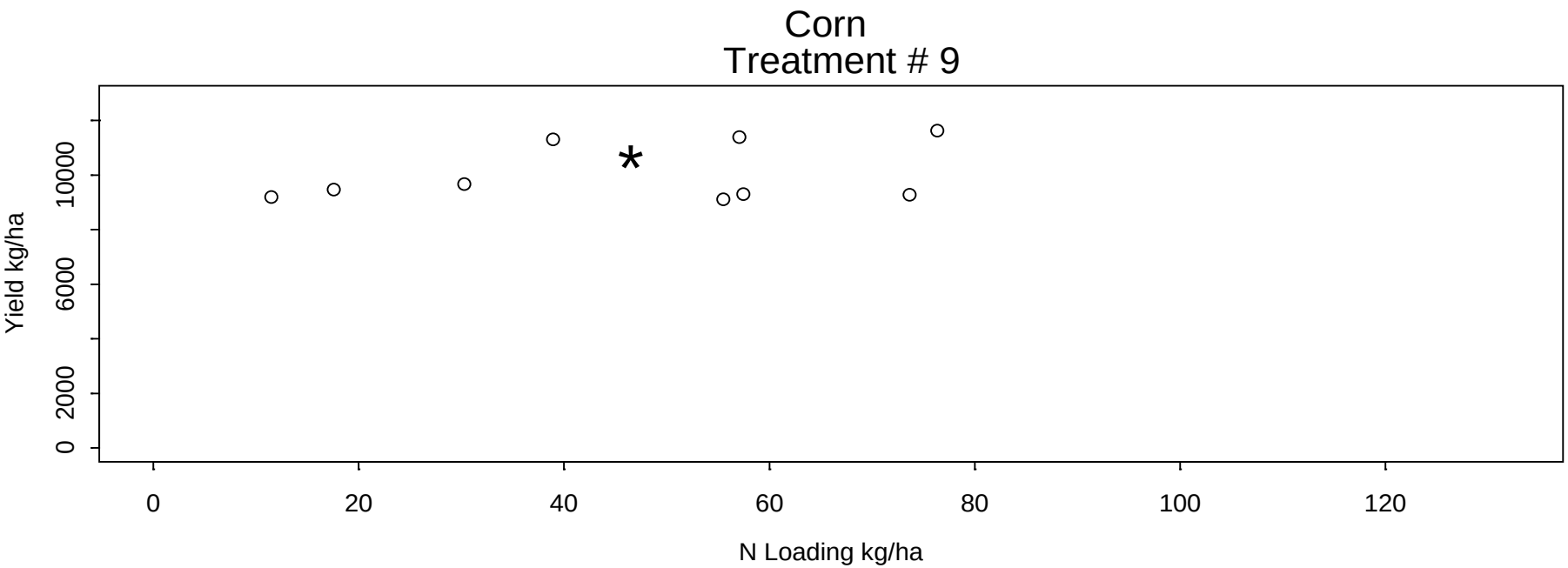

Corn
Treatment # 5
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

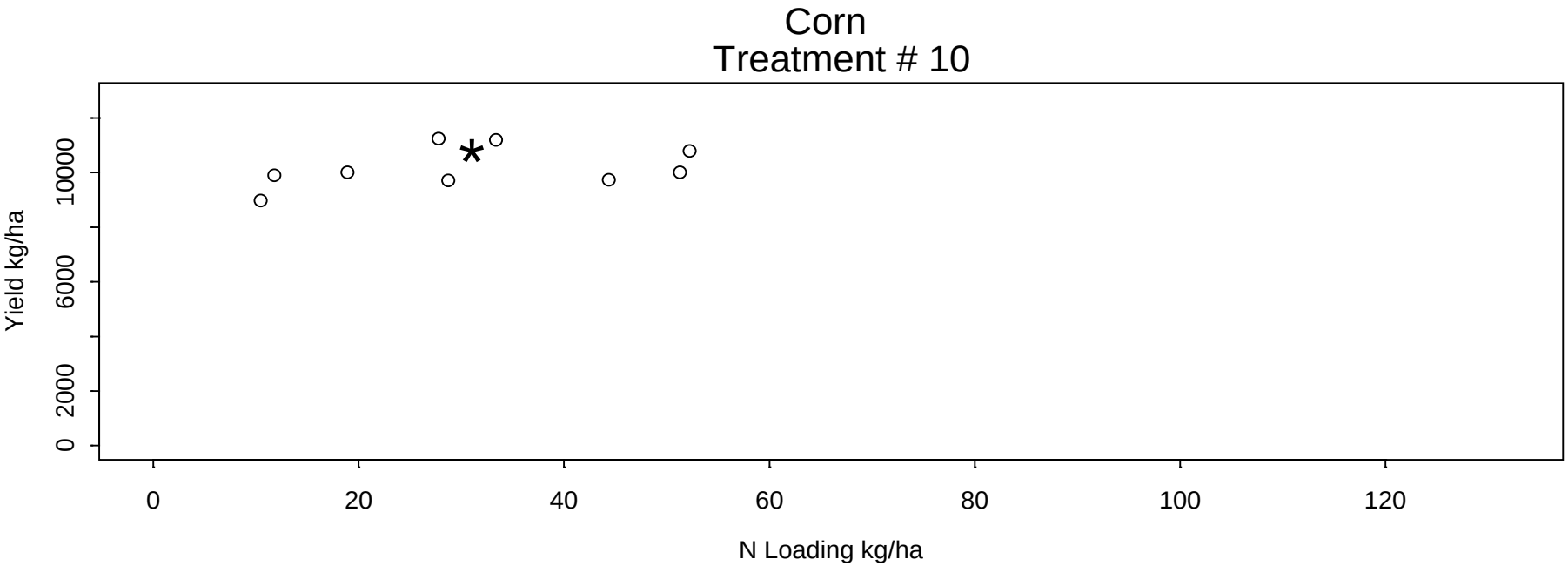

Soybean
Treatment # 5
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

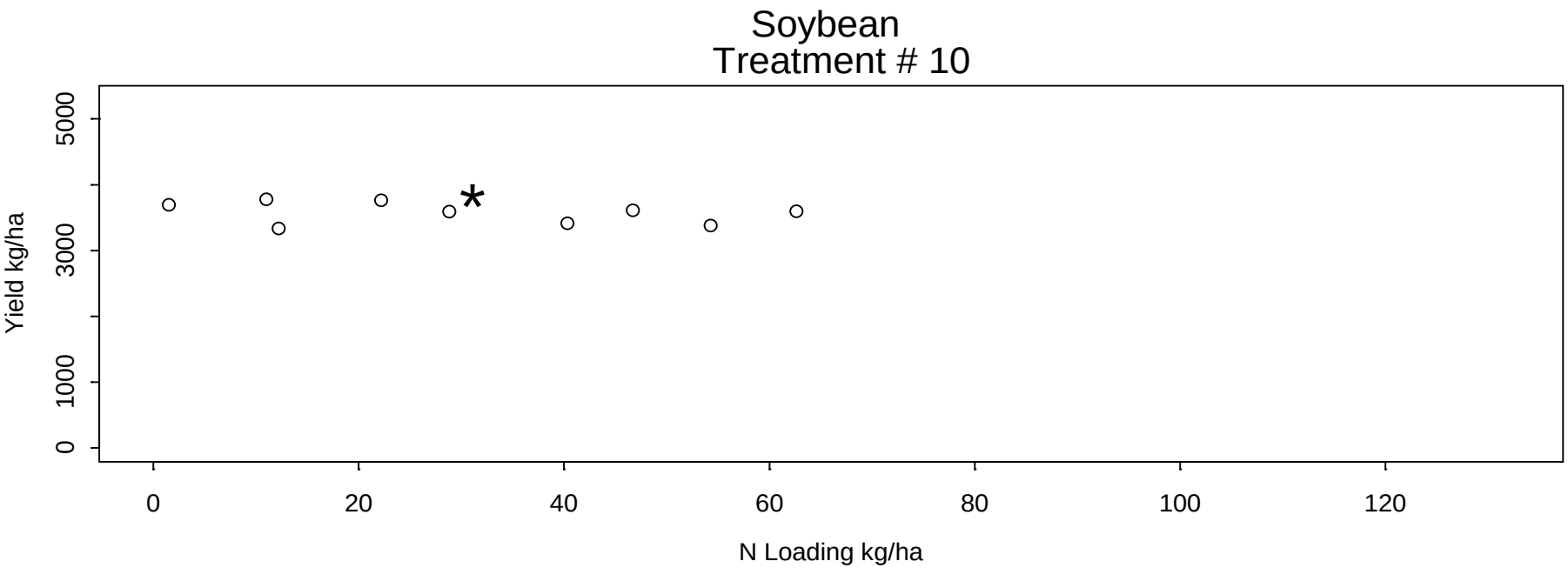

Corn
Treatment # 6
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

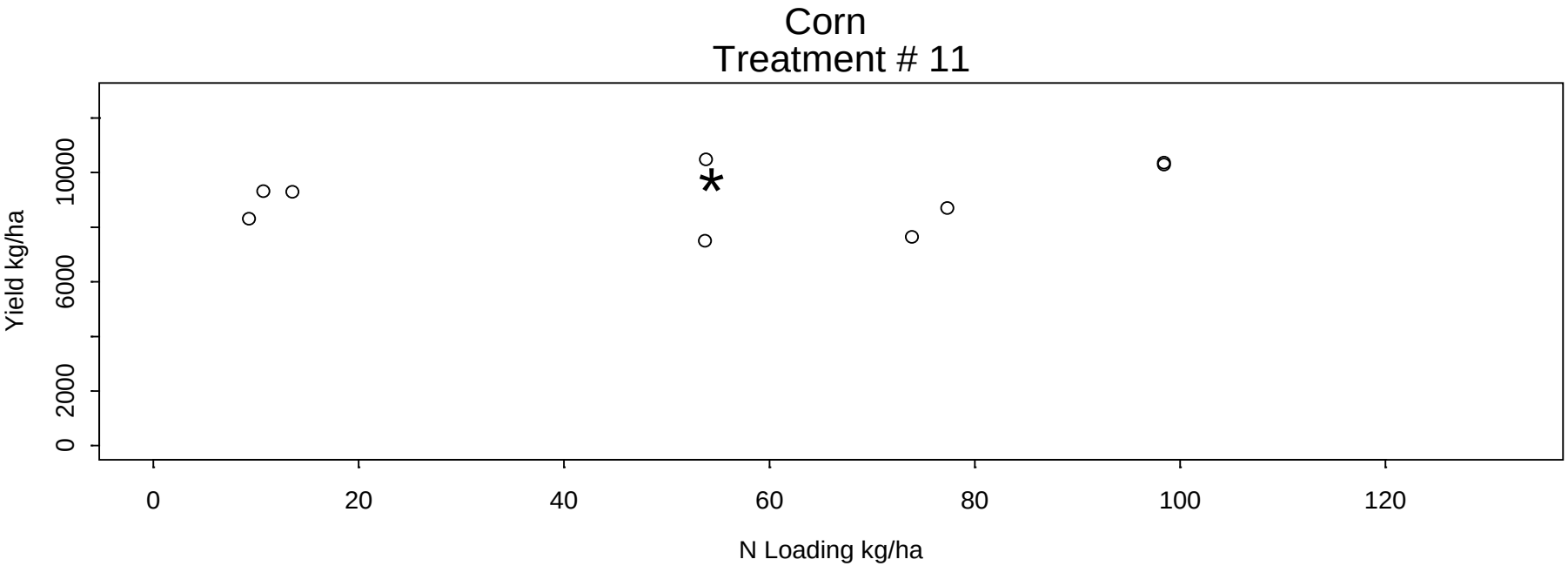

Corn
Treatment # 7
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

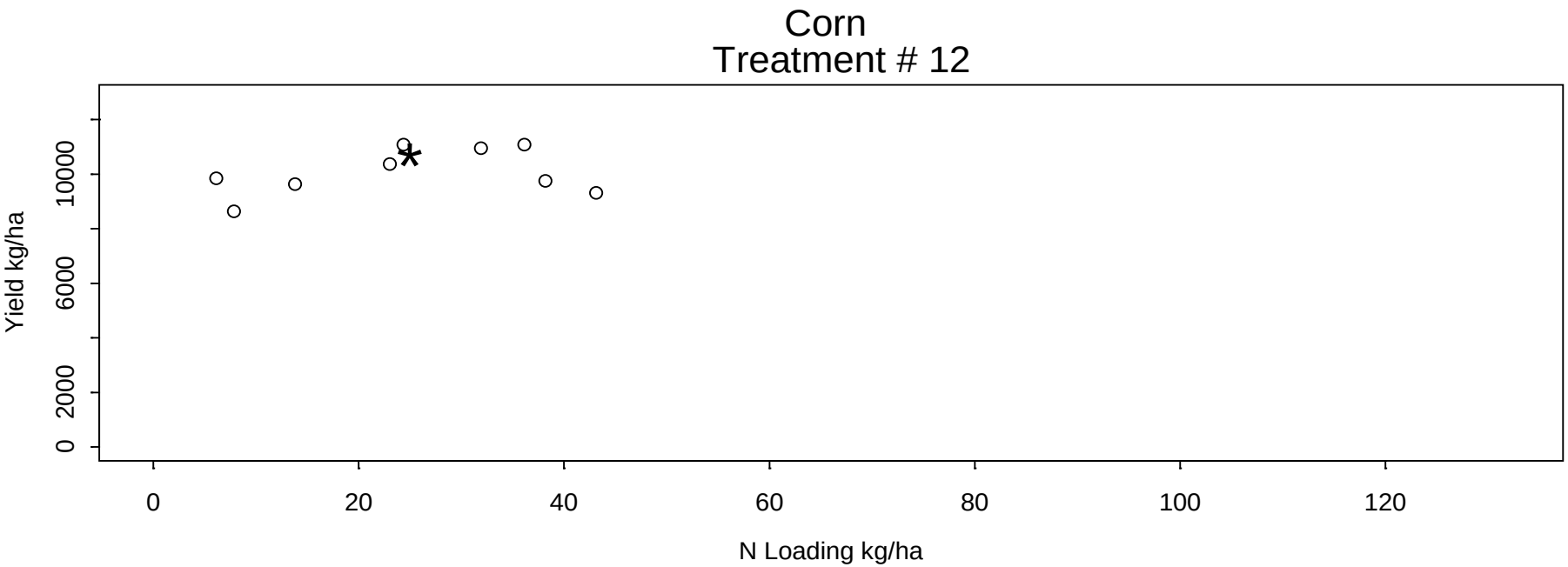

Corn
Treatment # 8
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

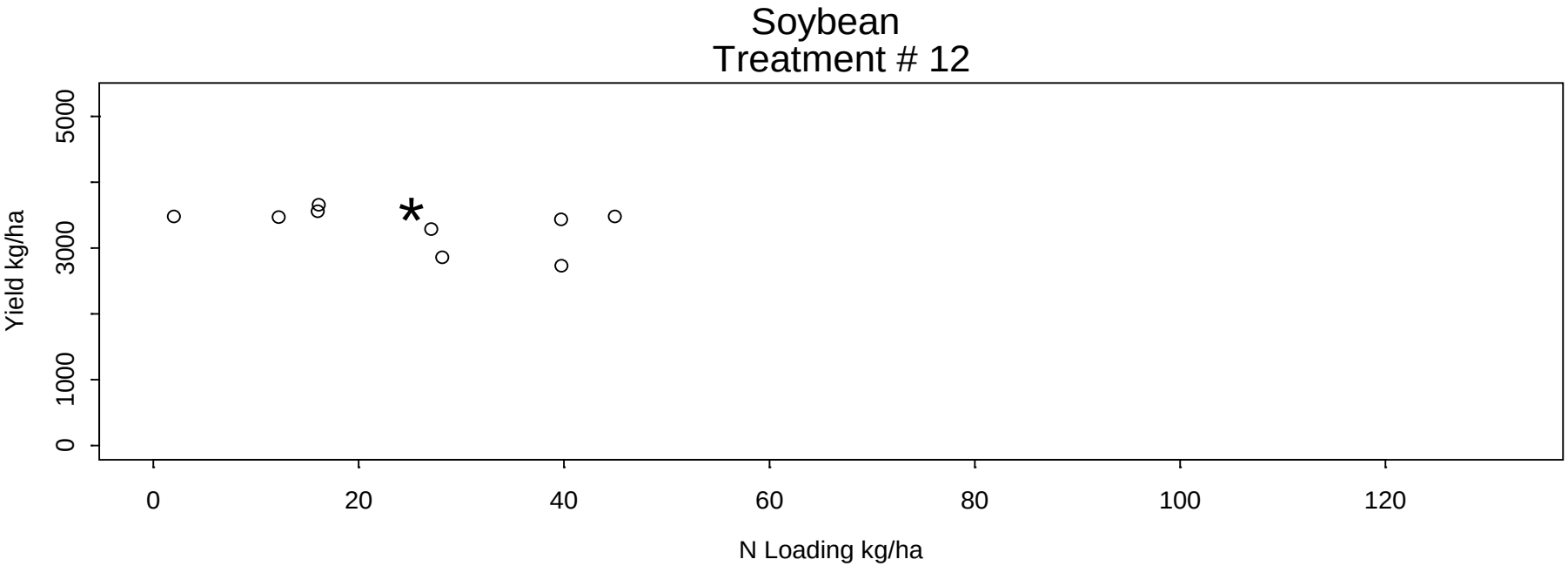

Corn
Treatment # 9
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

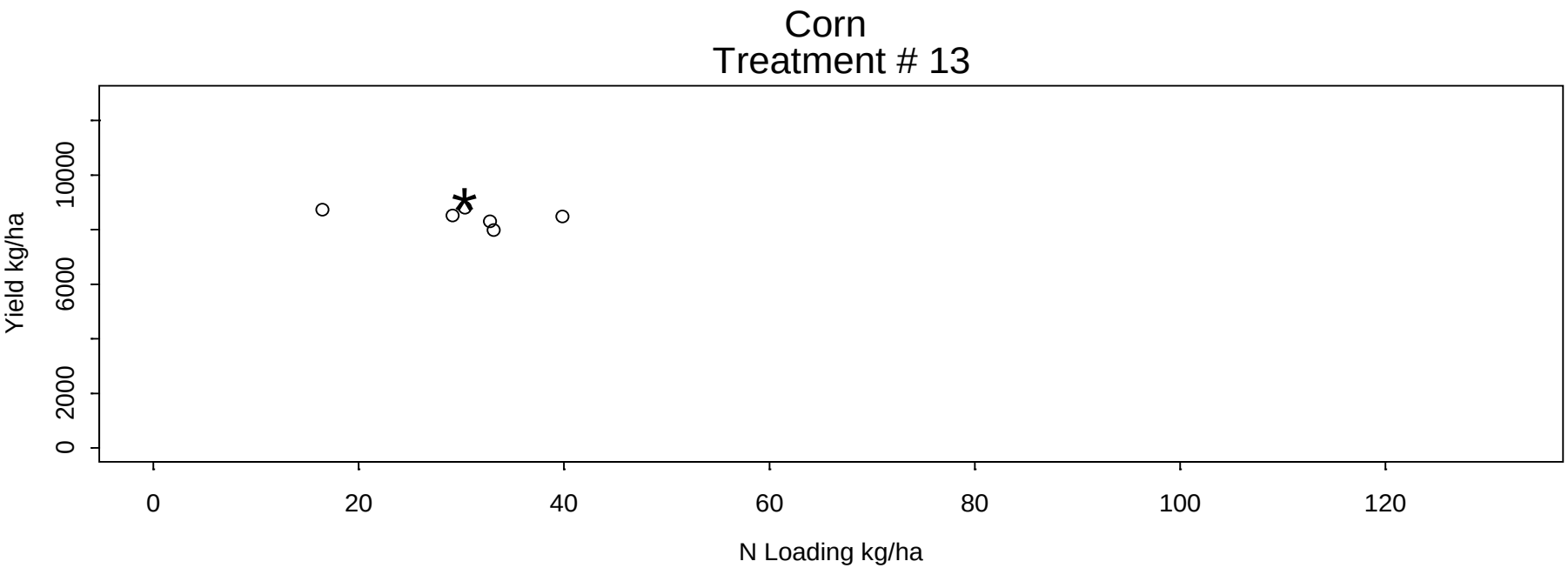

Corn
Treatment # 10
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

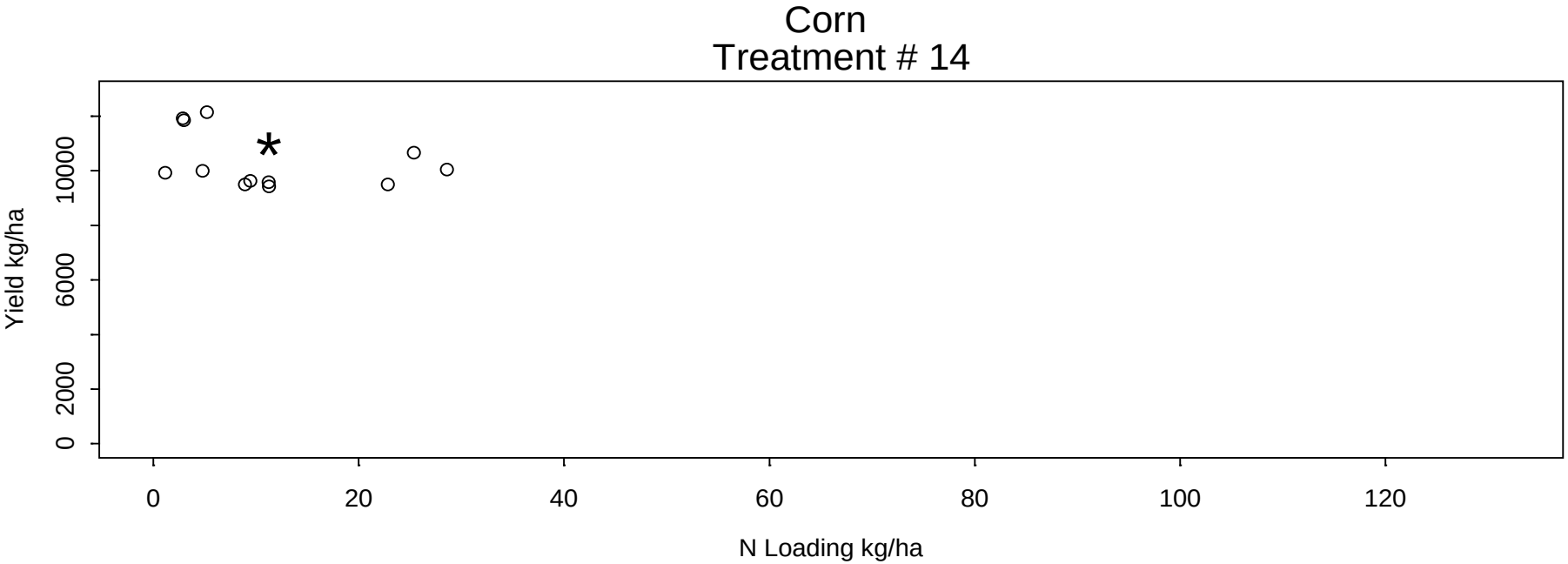

Soybean
Treatment # 10
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

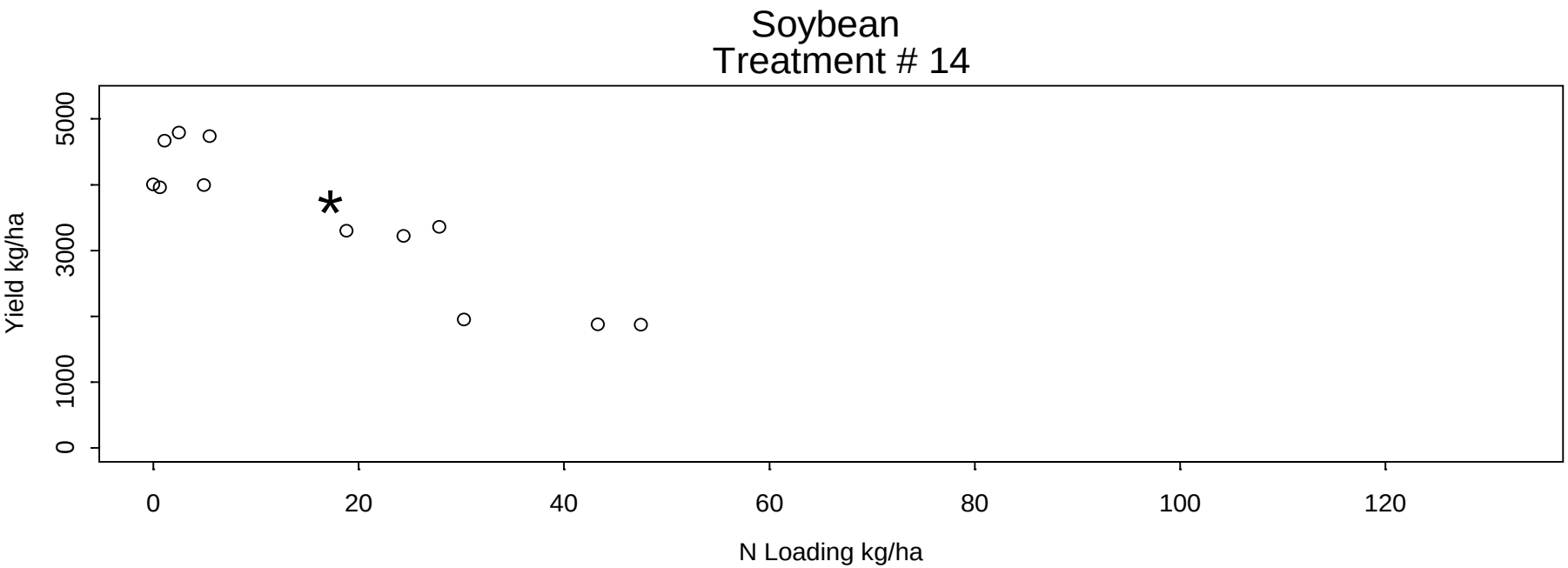

Corn
Treatment # 11
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

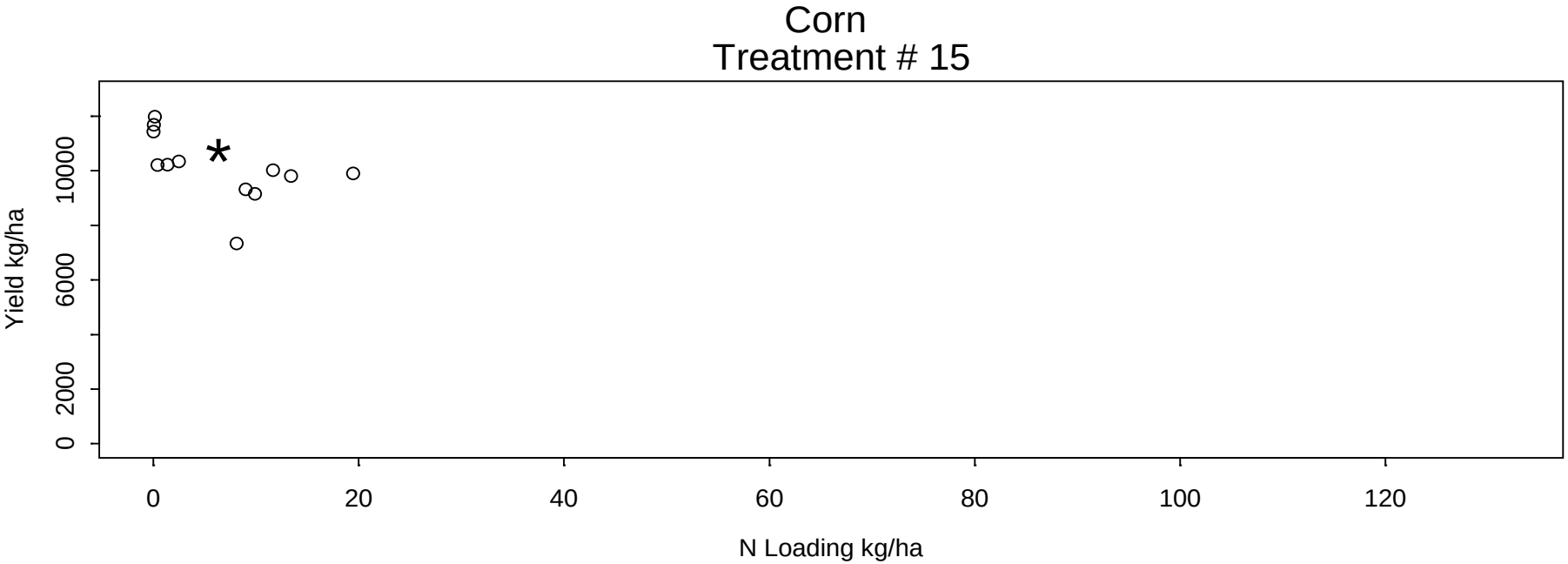

Corn
Treatment # 12
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

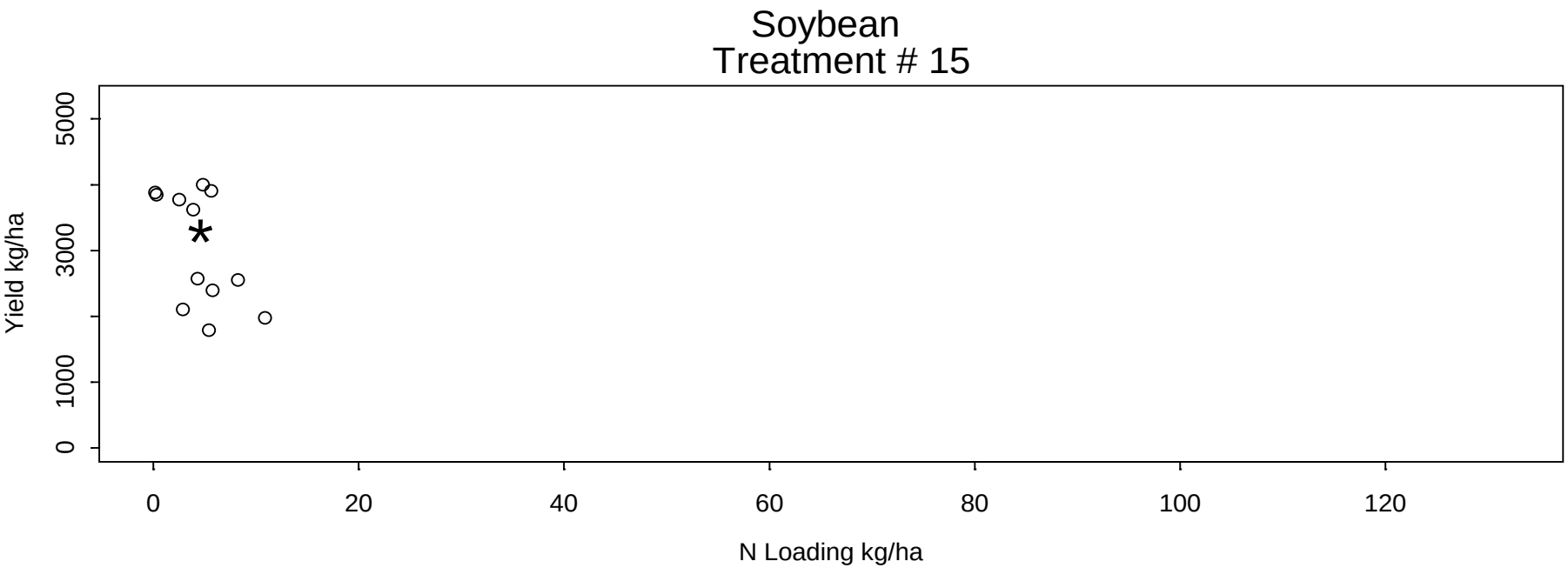

Soybean
Treatment # 12
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

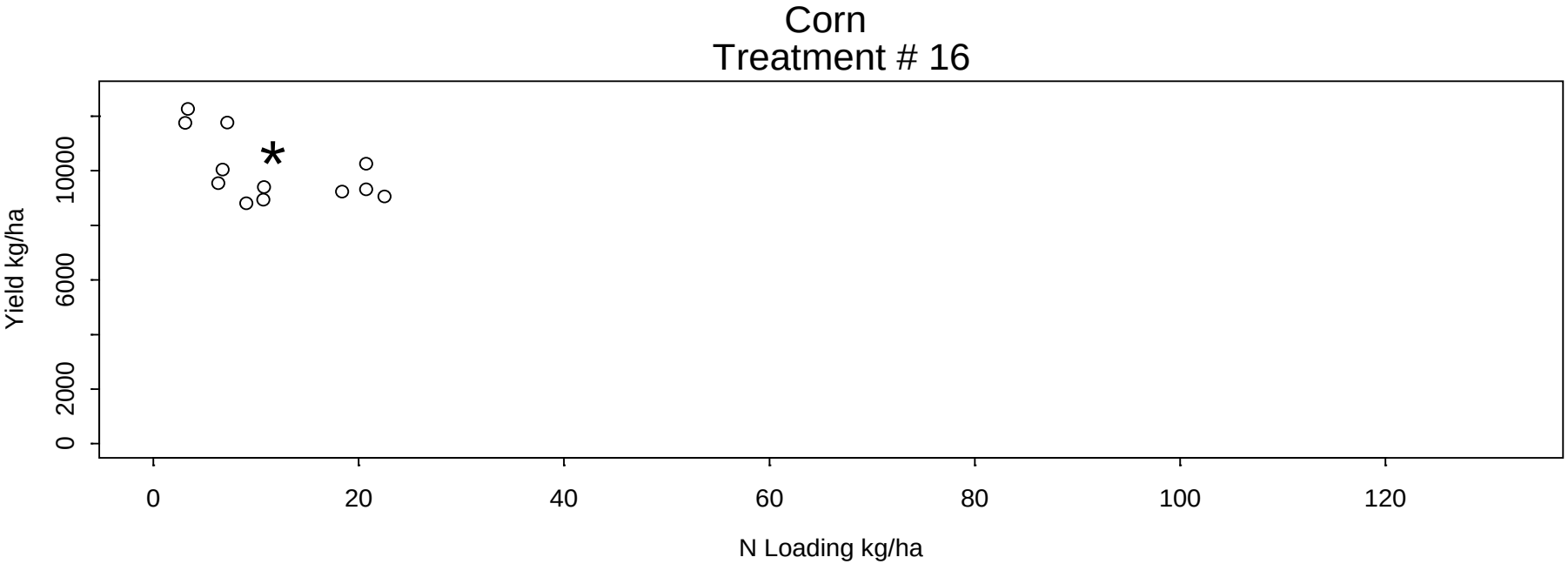

Corn
Treatment # 13
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

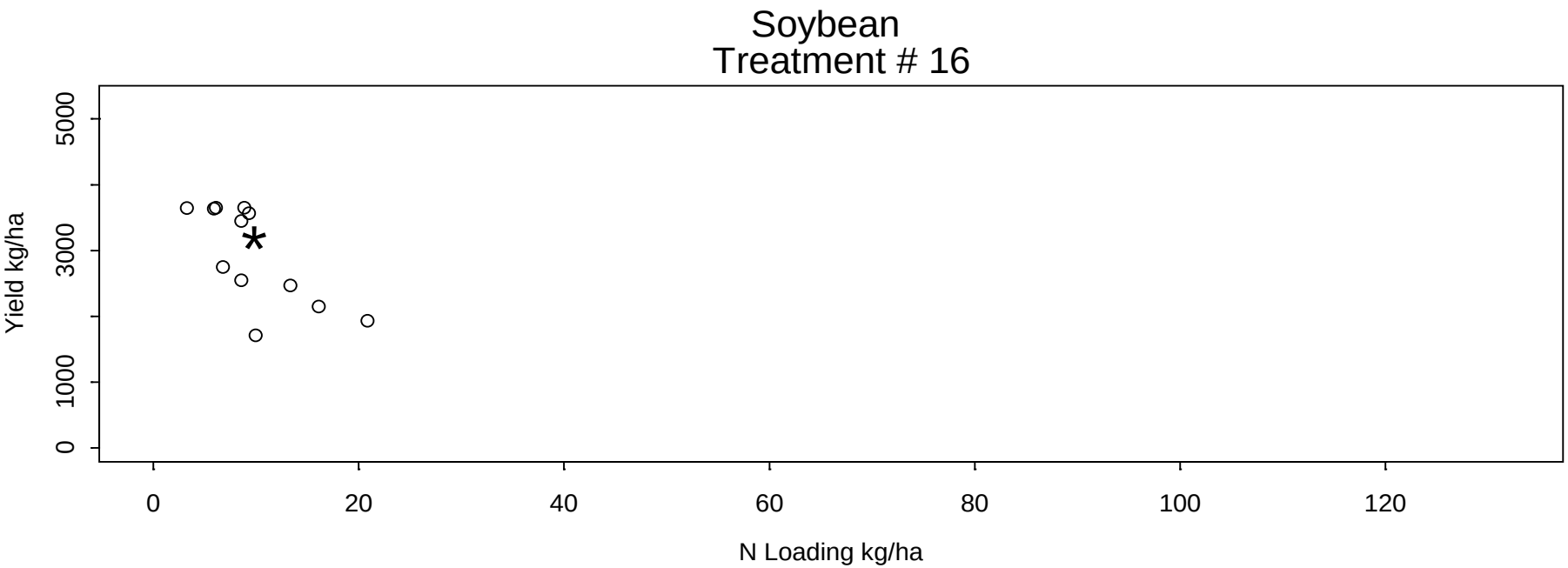

Corn
Treatment # 14
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha


Soybean
Treatment # 14
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

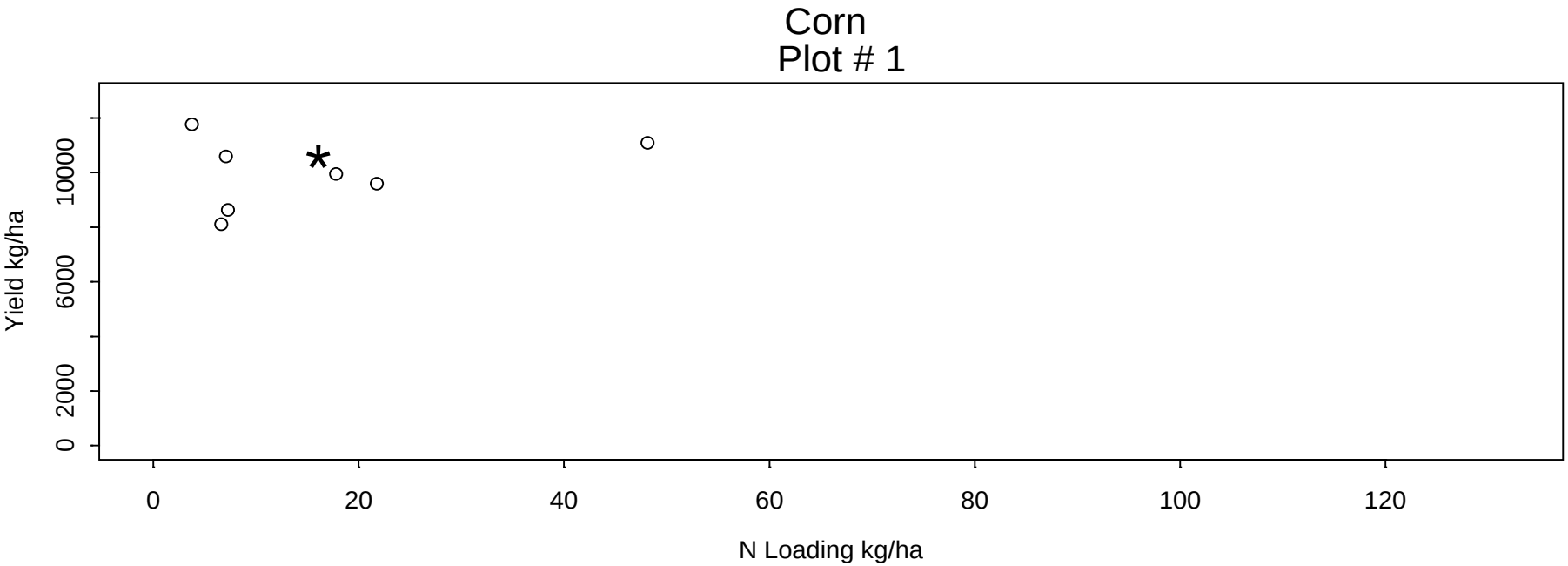

Corn
Treatment # 15
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

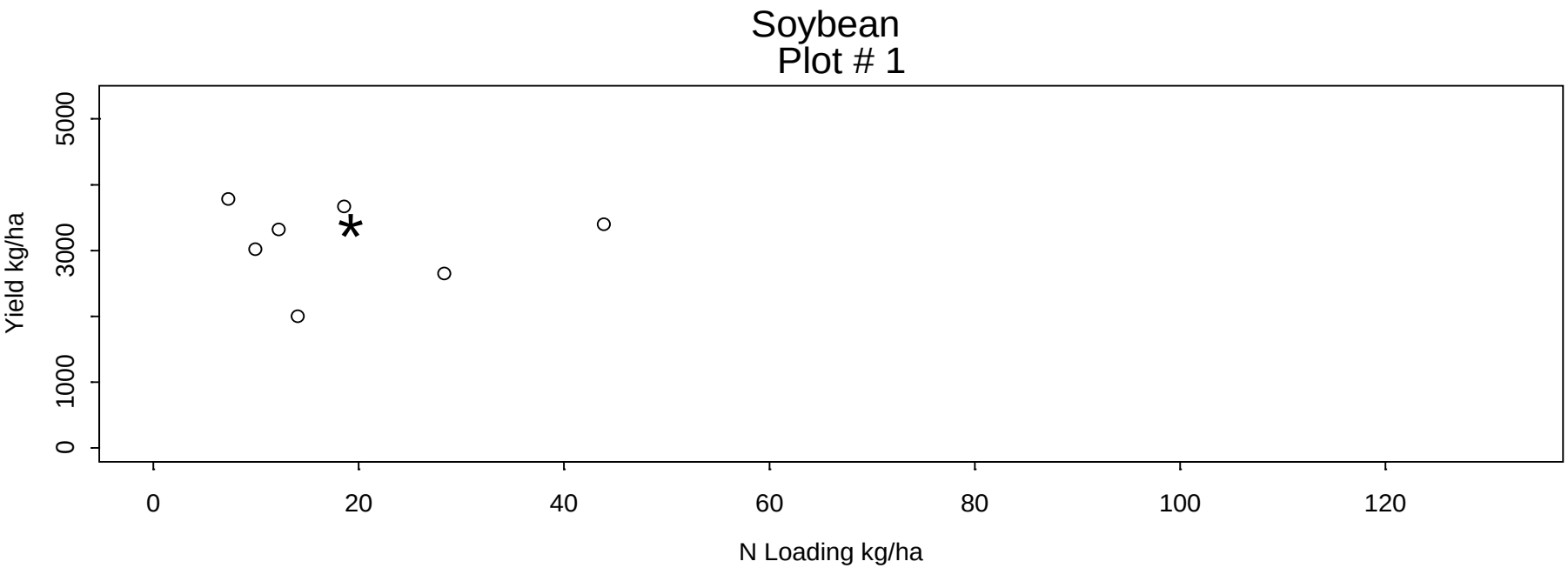

Soybean
Treatment # 15
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

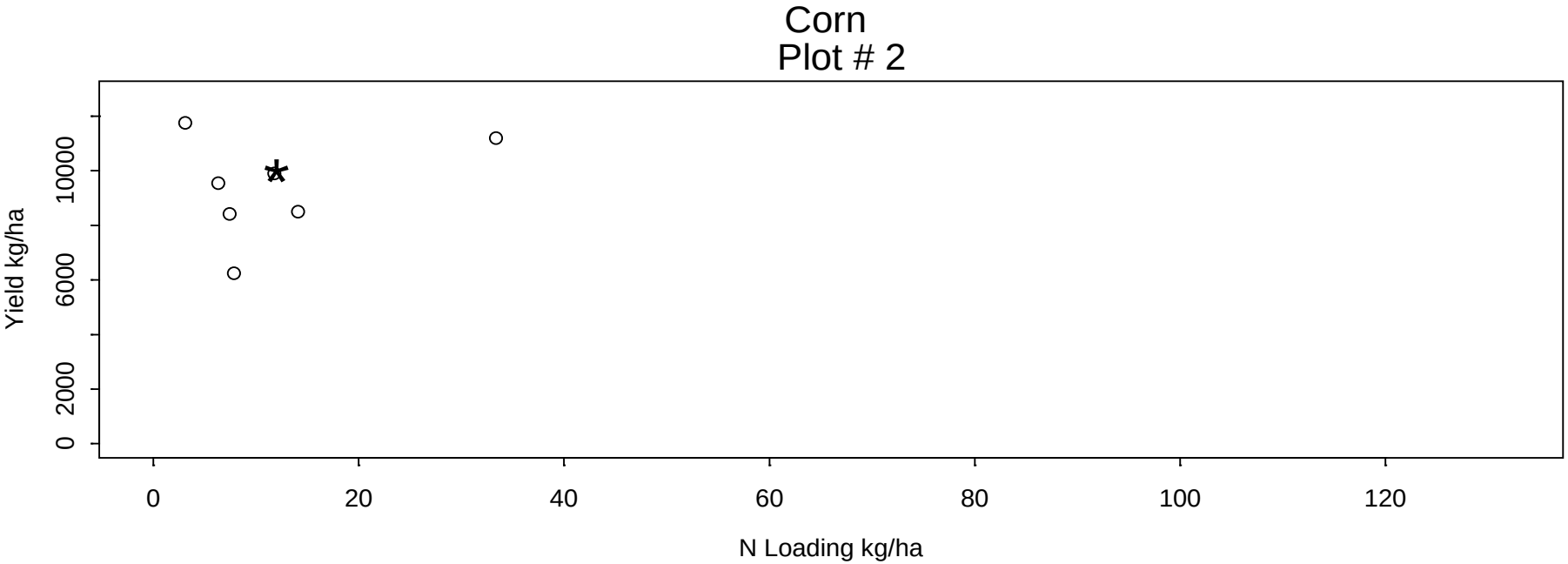

Corn
Treatment # 16
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

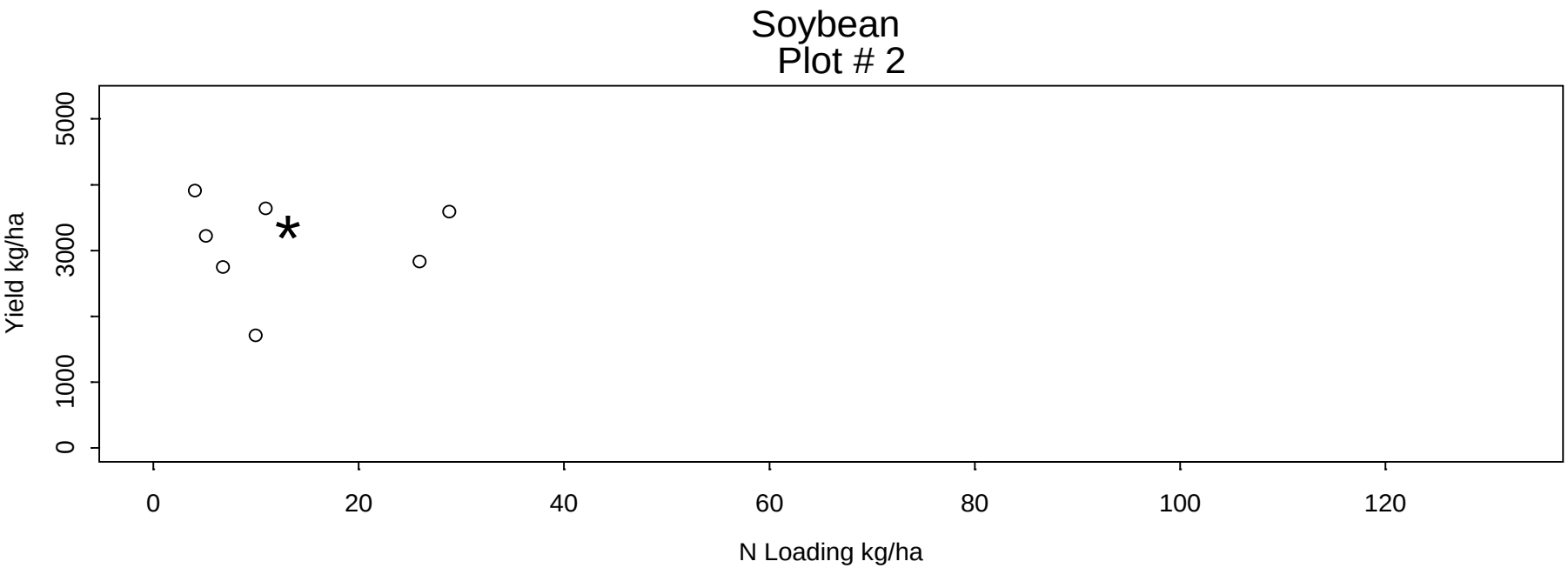

Soybean
Treatment # 16
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

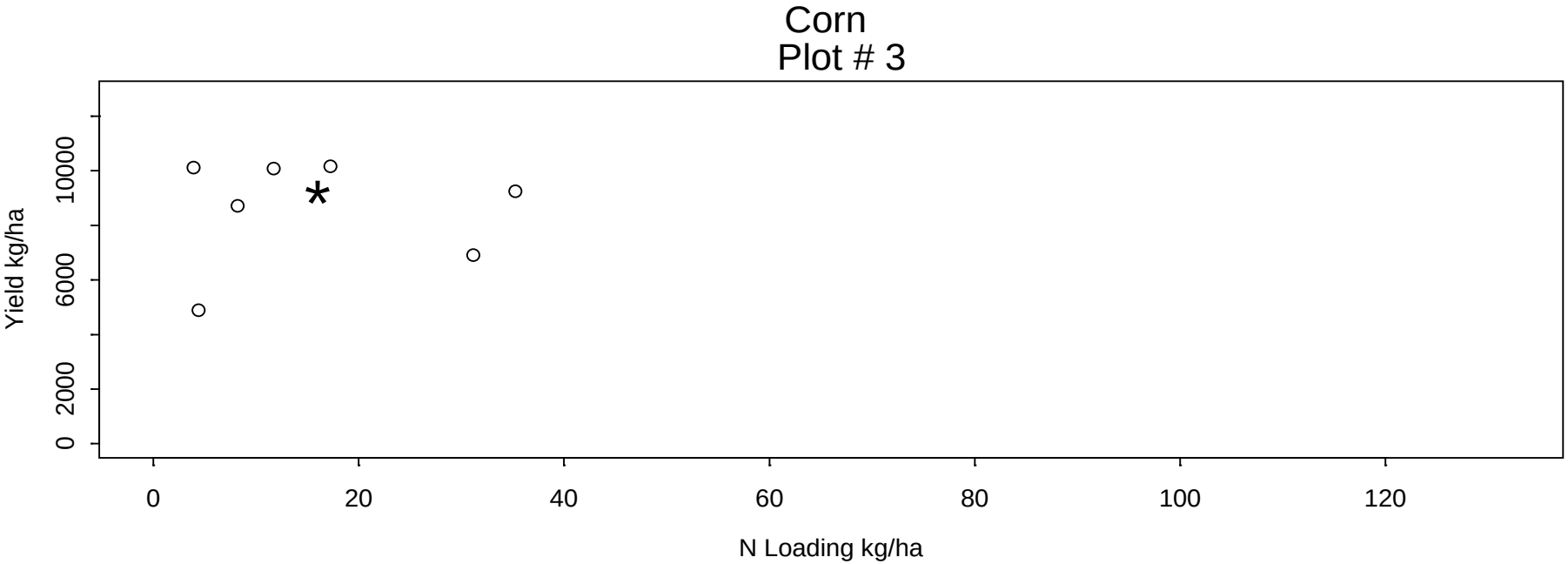
Plot Effects

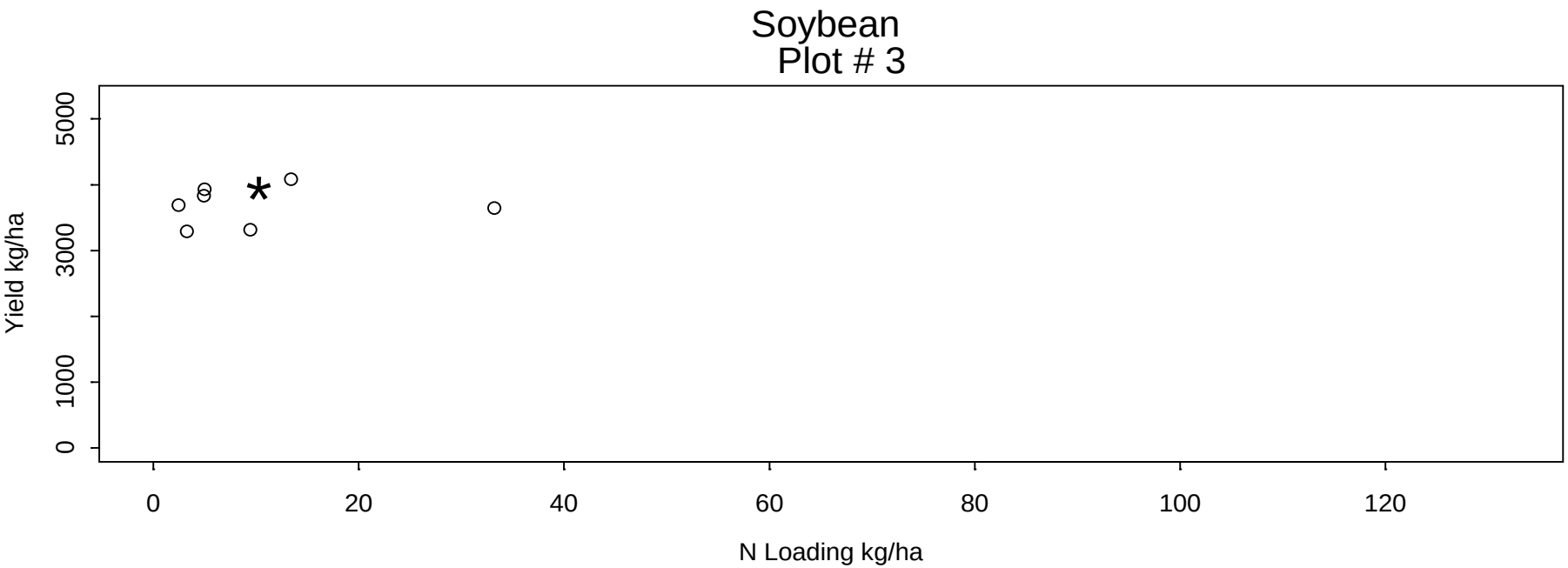

Corn
Plot # 1
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

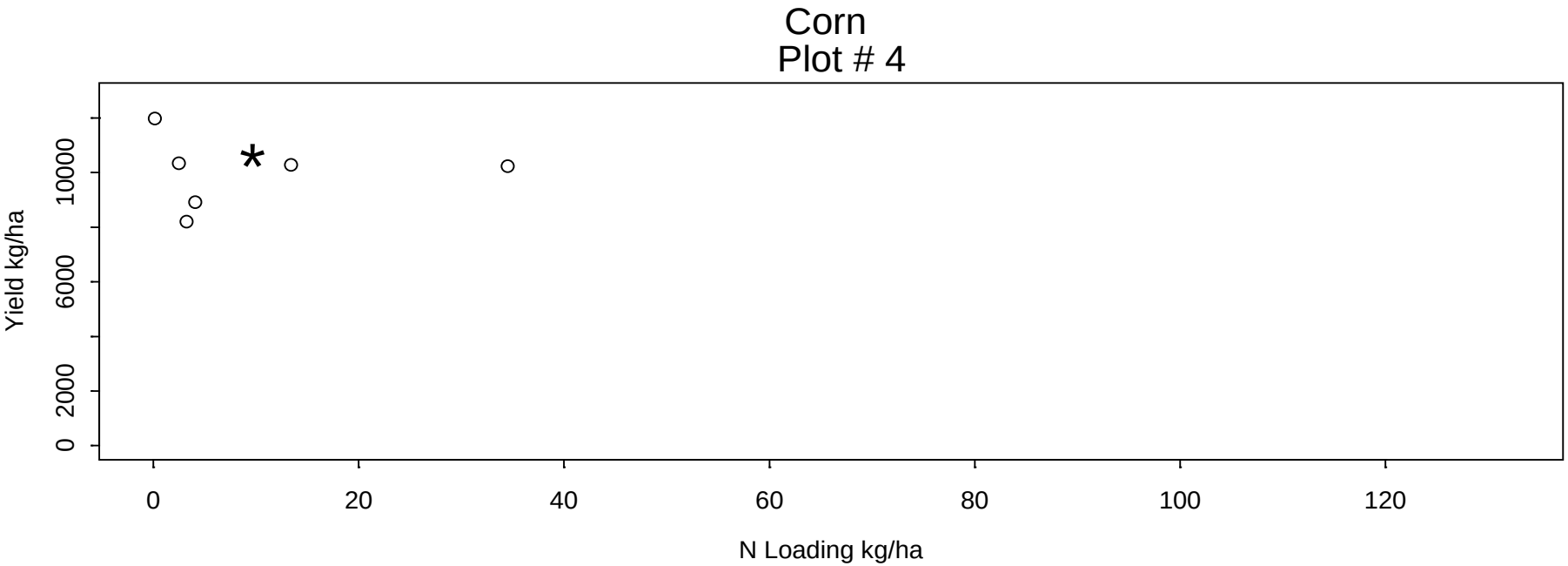

Soybean
Plot # 1
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

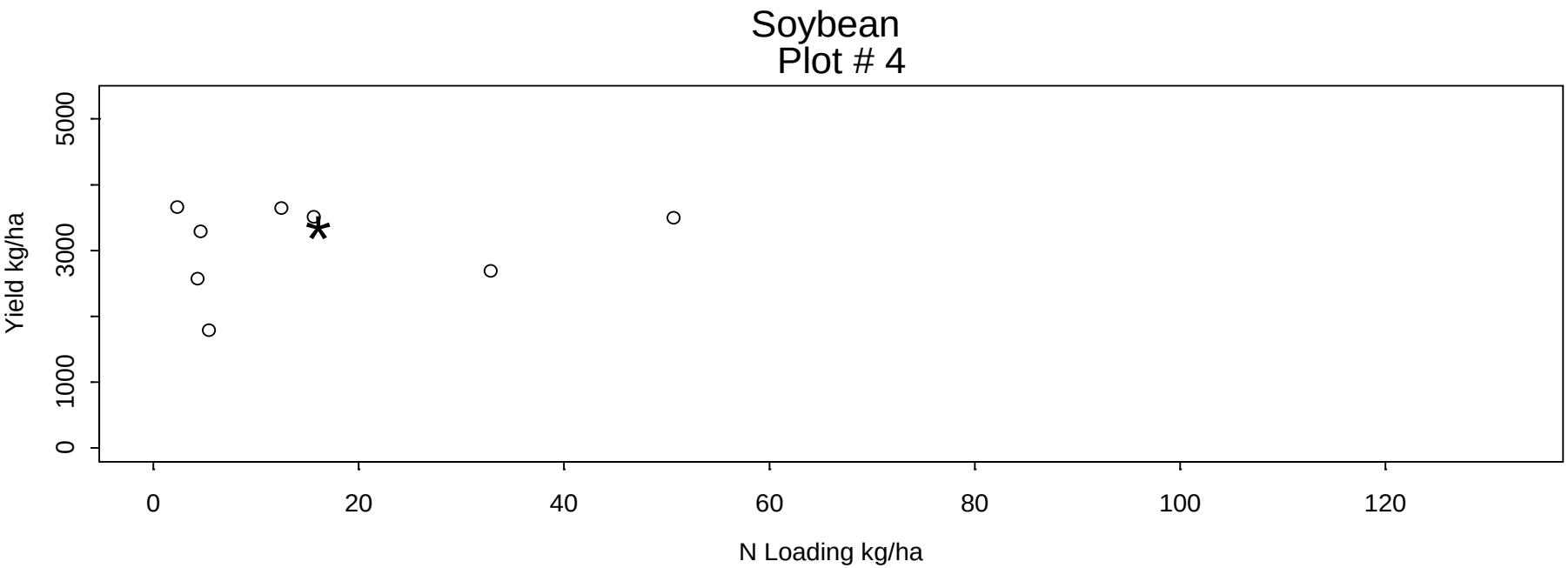

Corn
Plot # 2
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

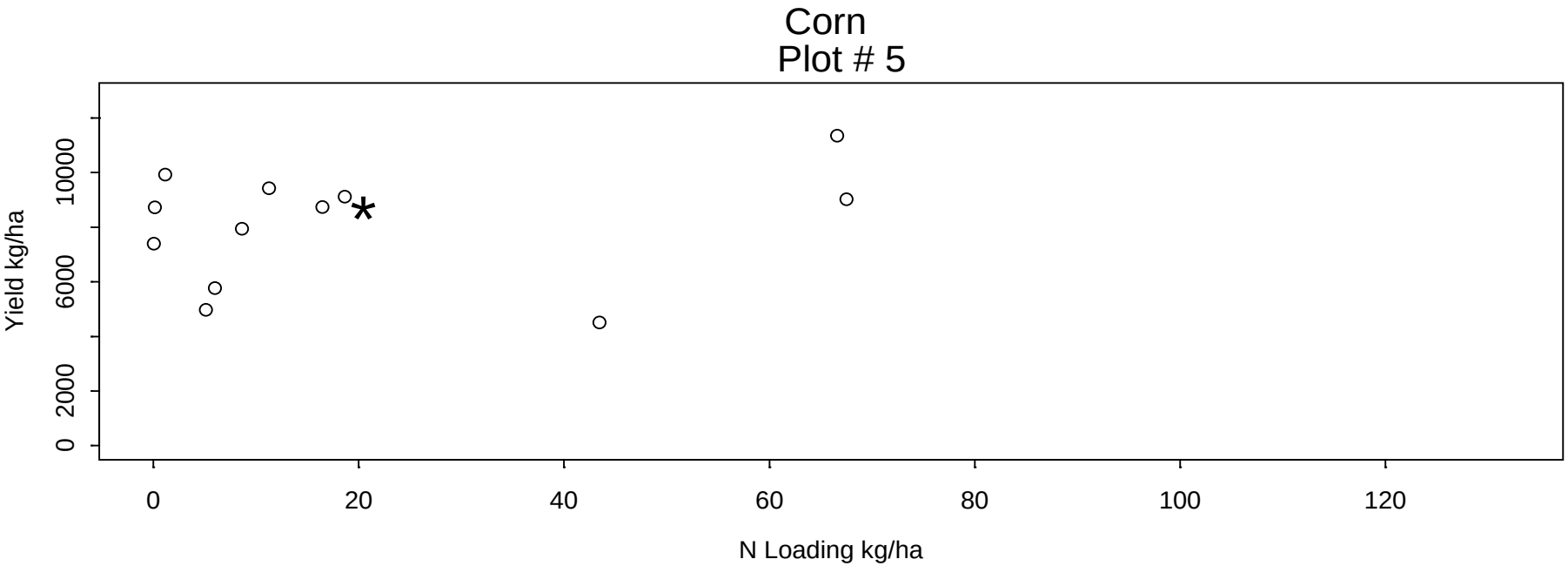

Soybean
Plot # 2
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

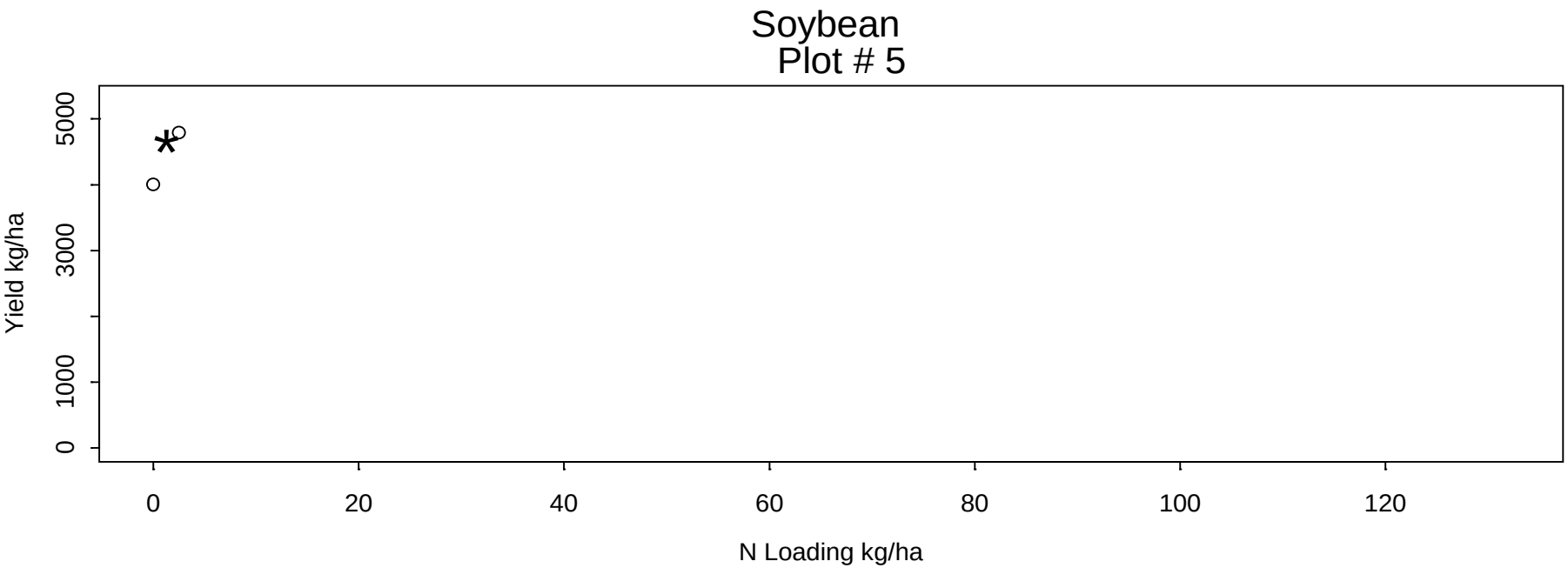

Corn
Plot # 3
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

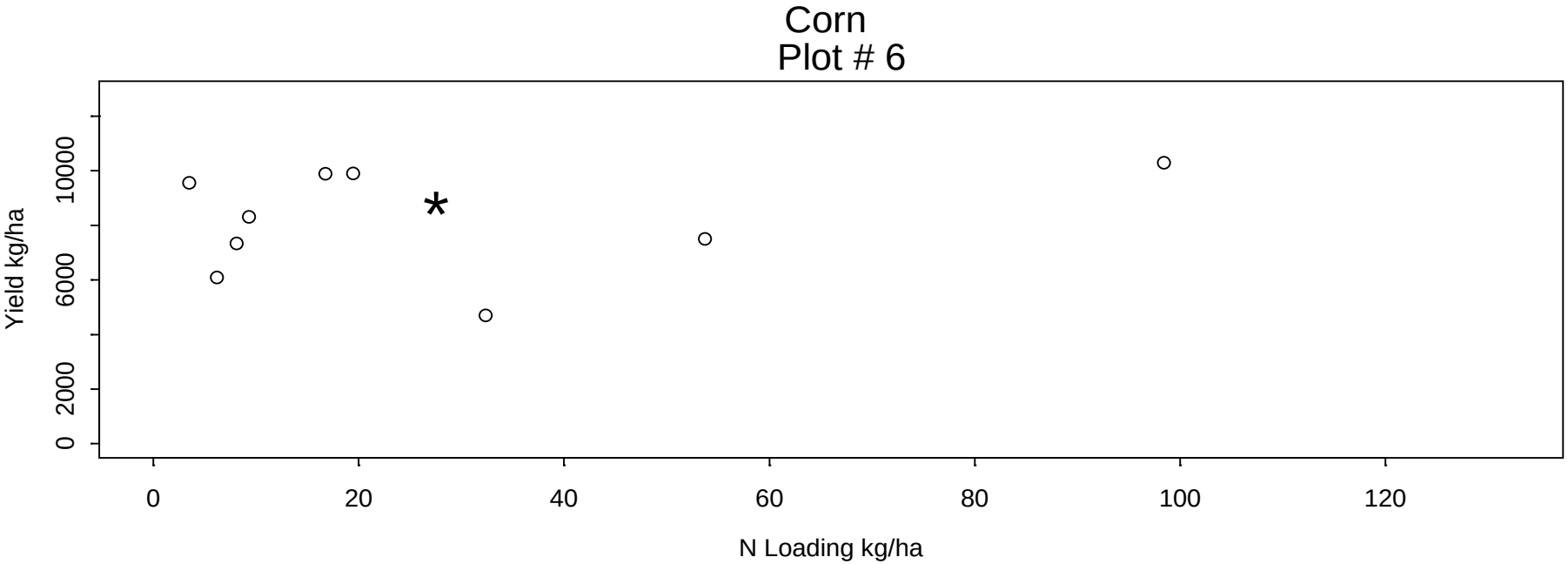

Soybean
Plot # 3
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

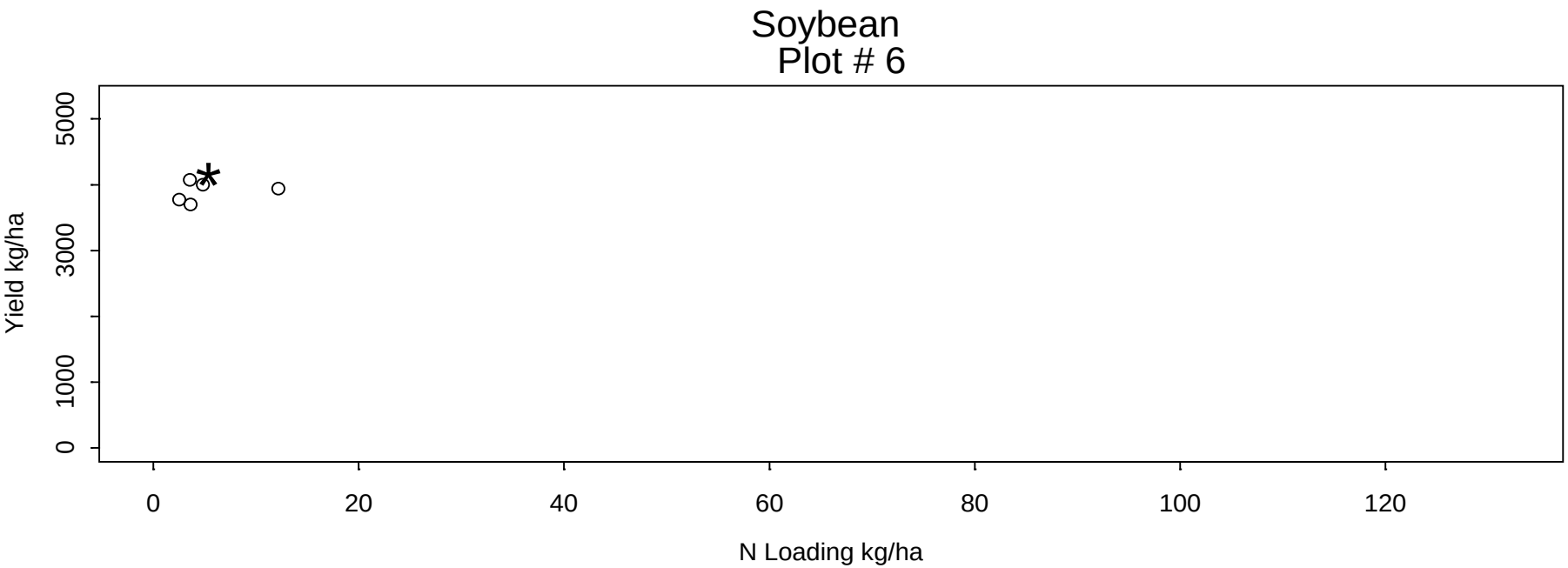

Corn
Plot # 4
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

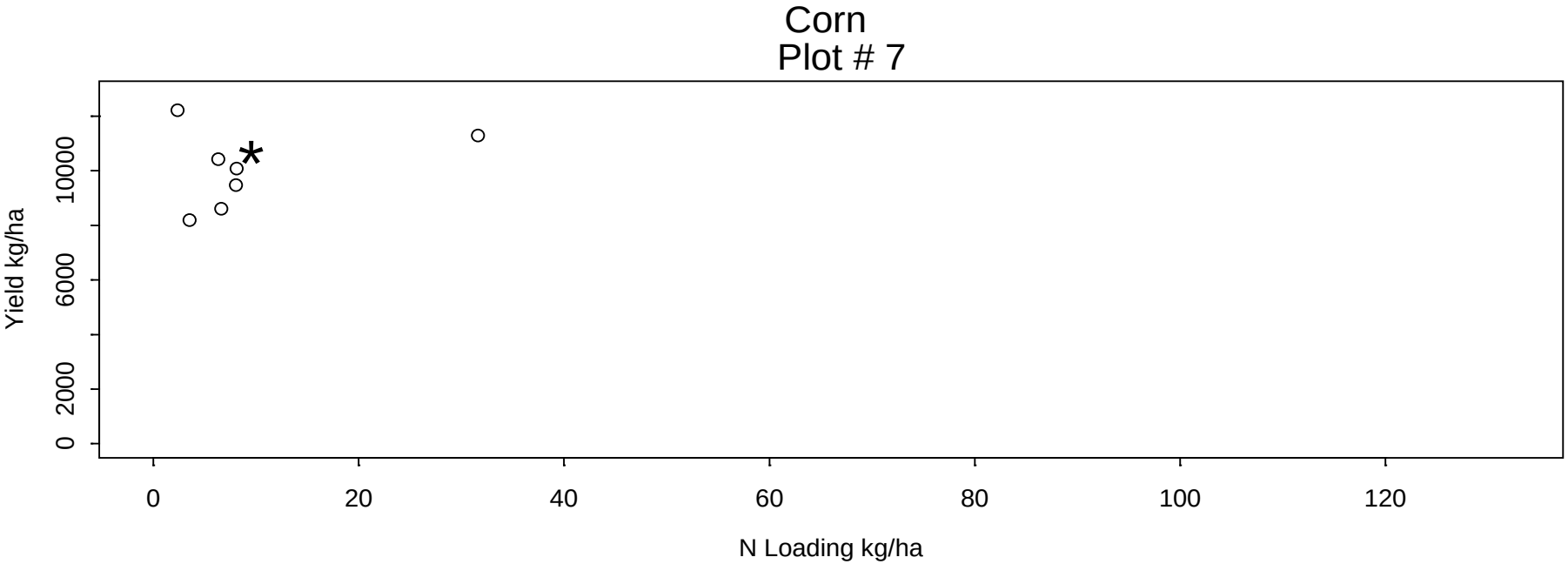

Soybean
Plot # 4
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

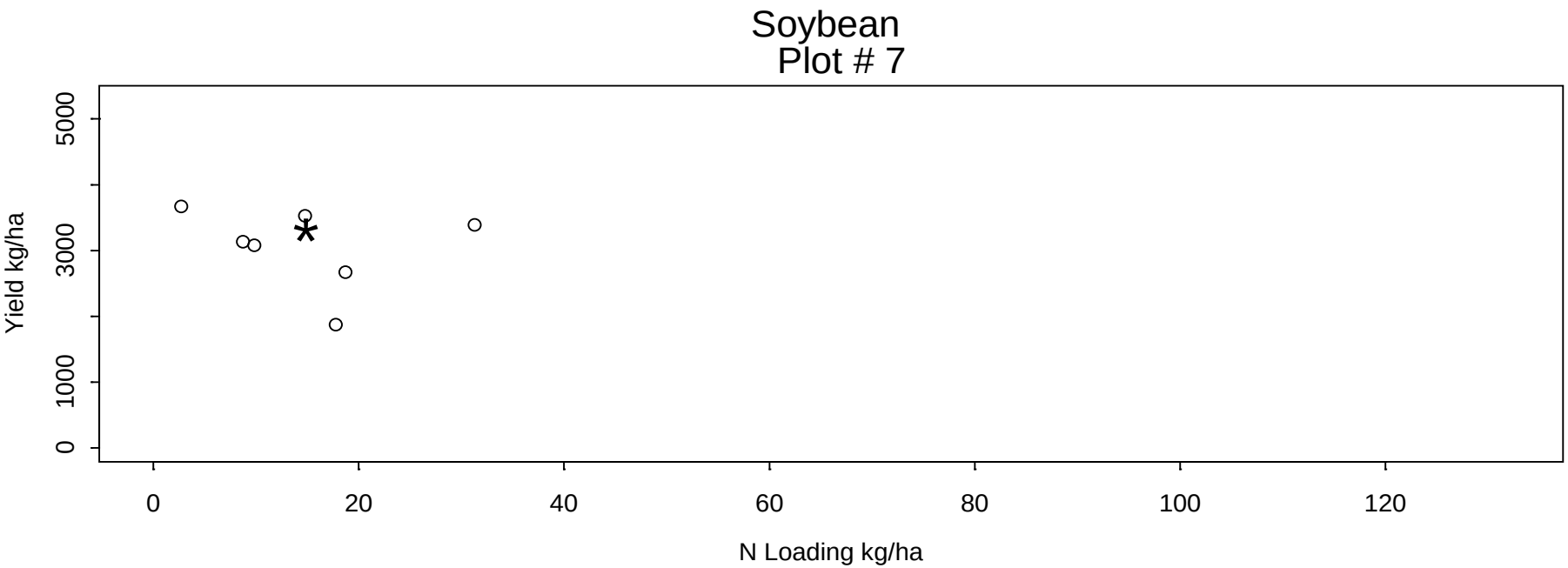

Corn
Plot # 5
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

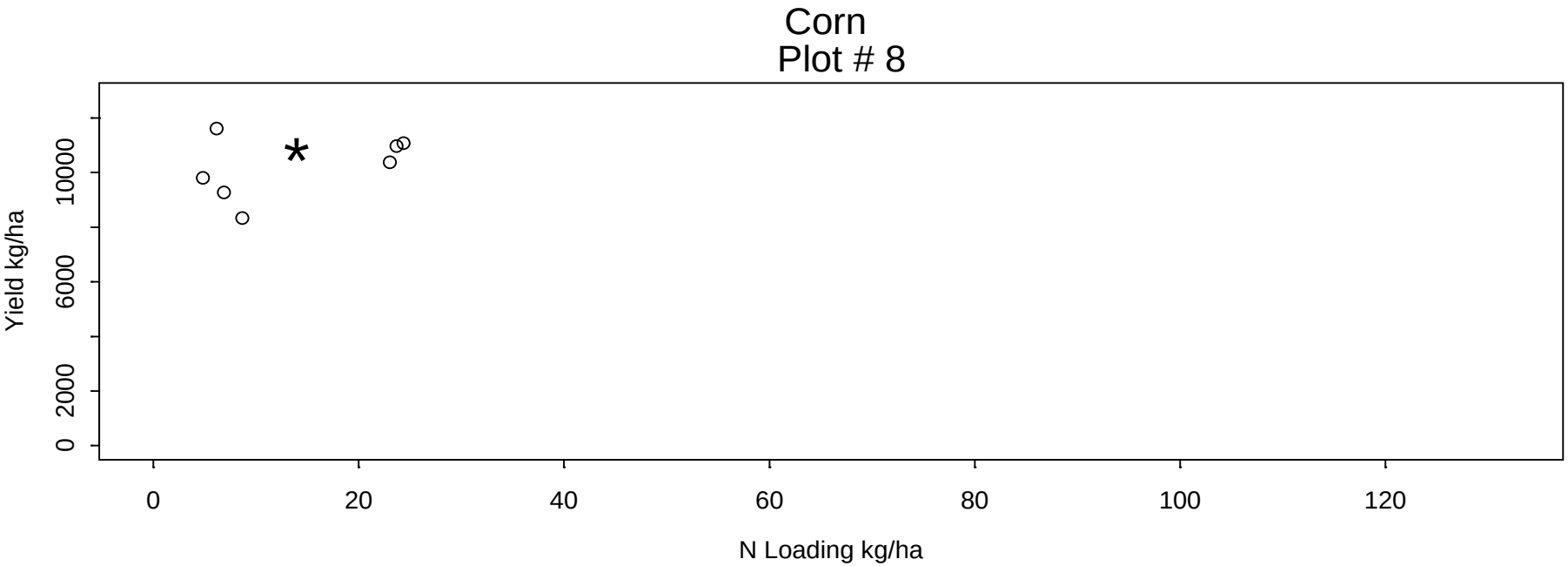

Soybean
Plot # 5
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

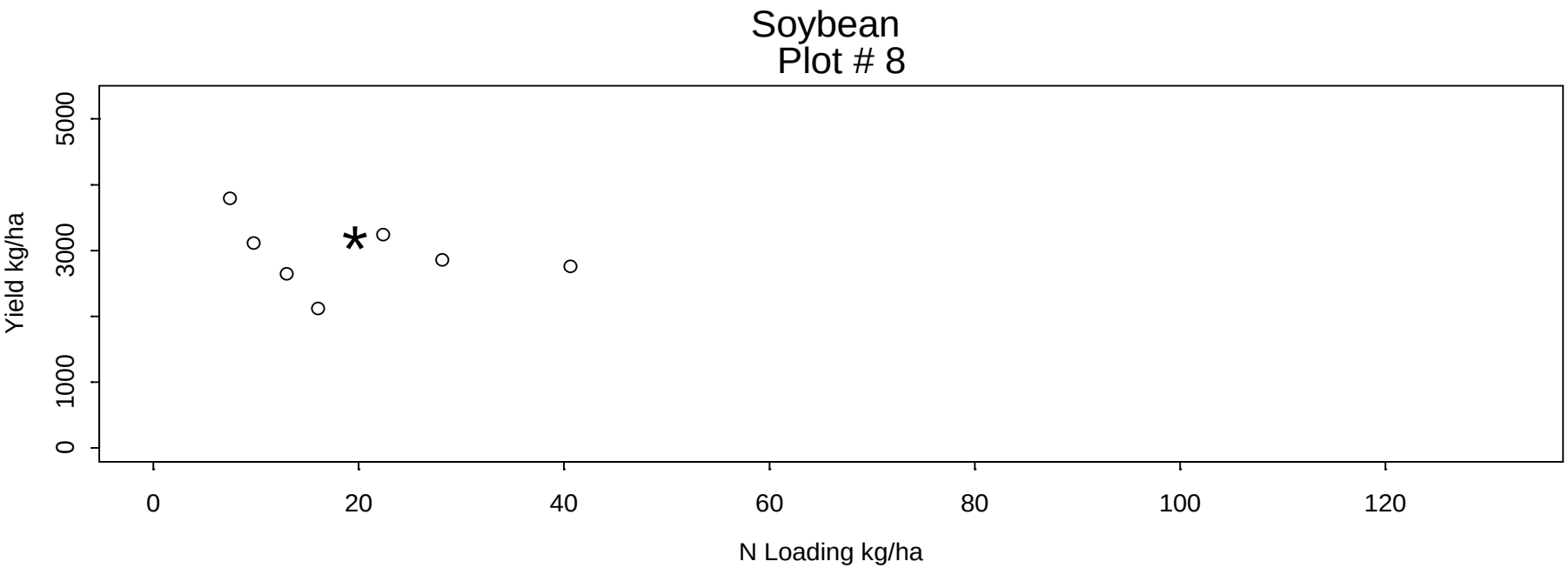

Corn
Plot # 6
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

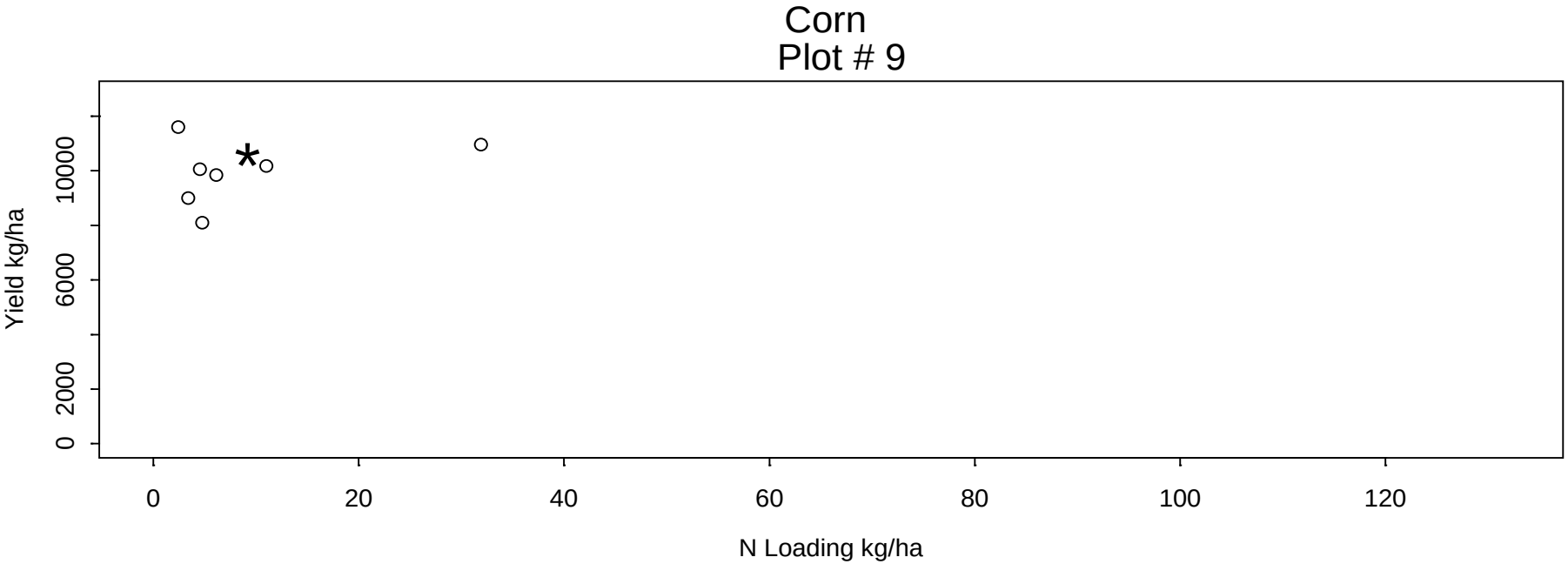

Soybean
Plot # 6
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

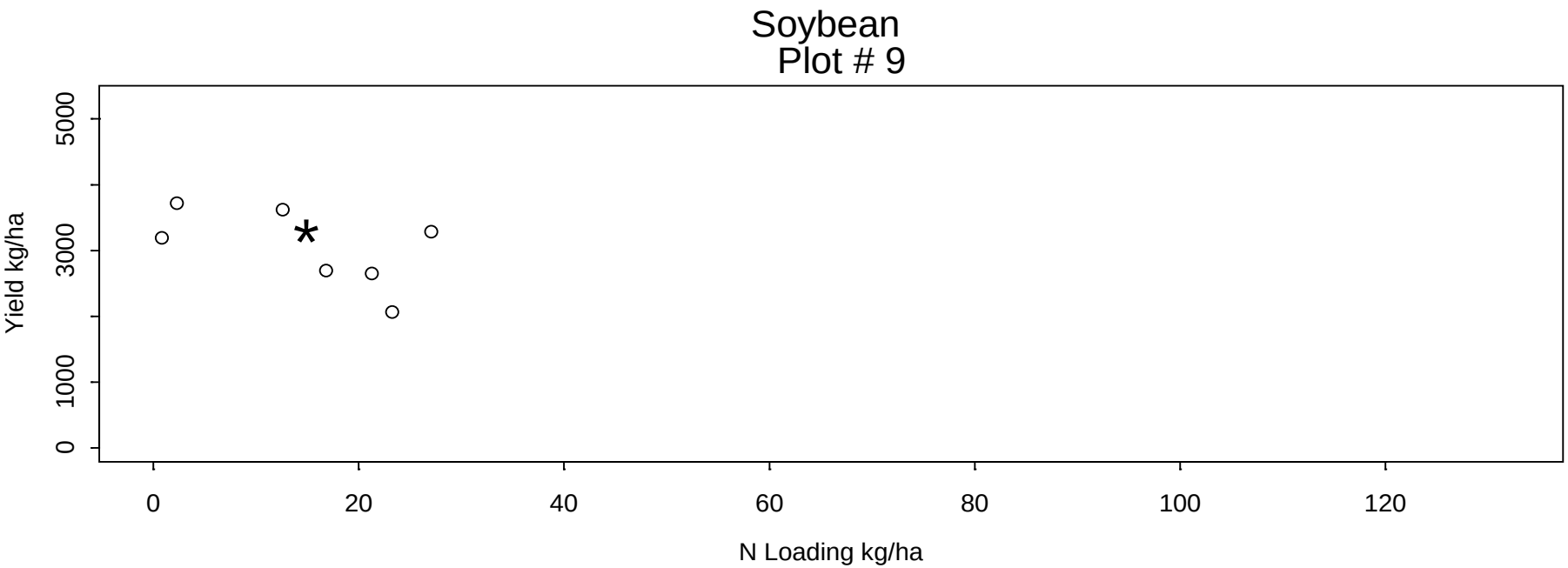

Corn
Plot # 7
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

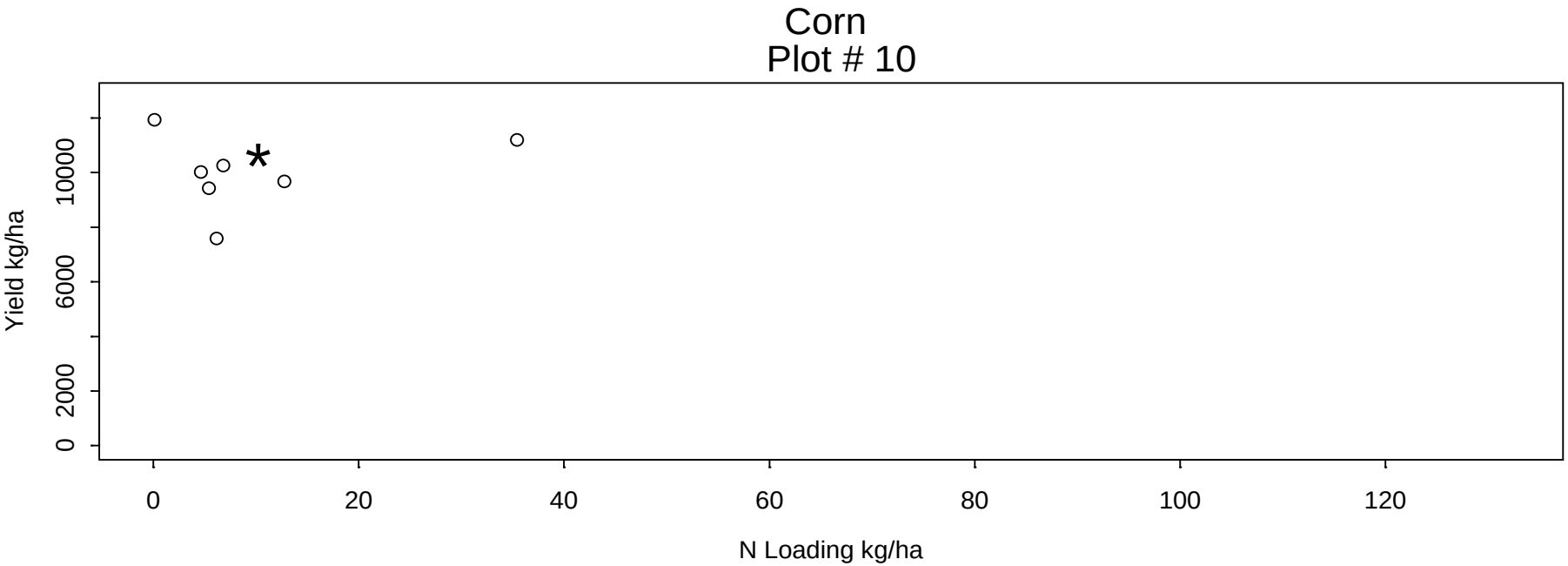

Soybean
Plot # 7
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

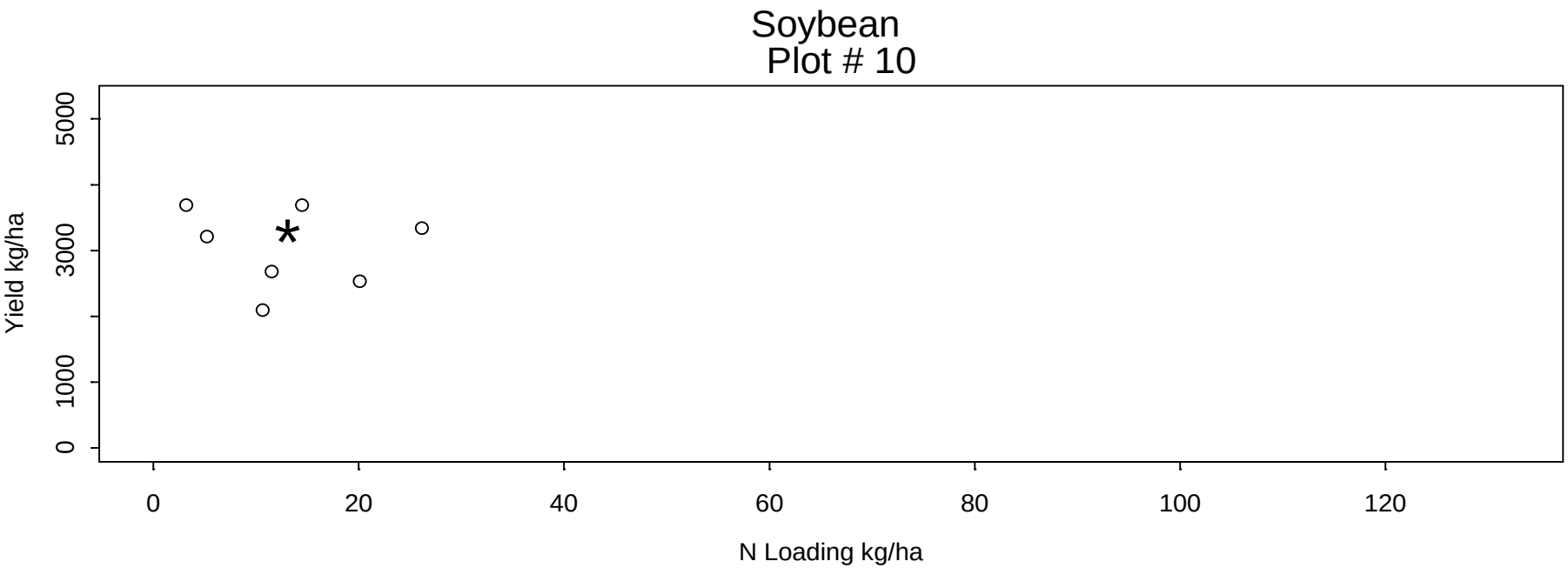

Corn
Plot # 8
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

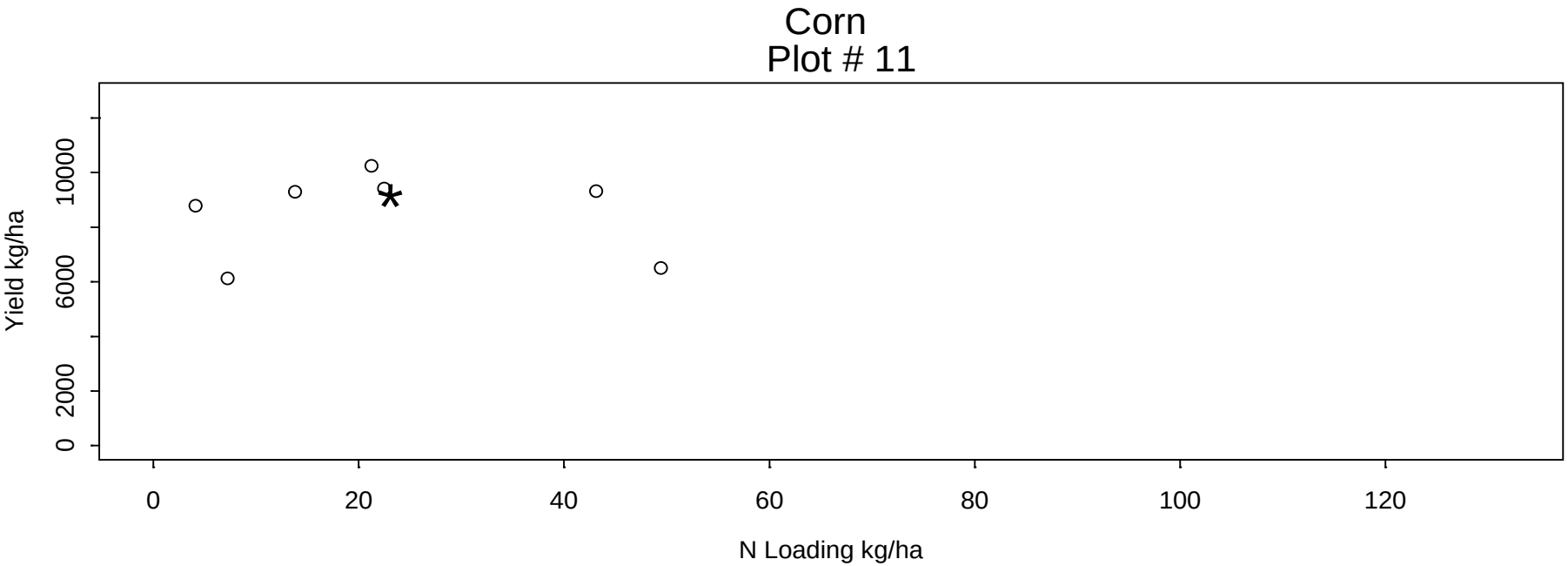

Soybean
Plot # 8
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

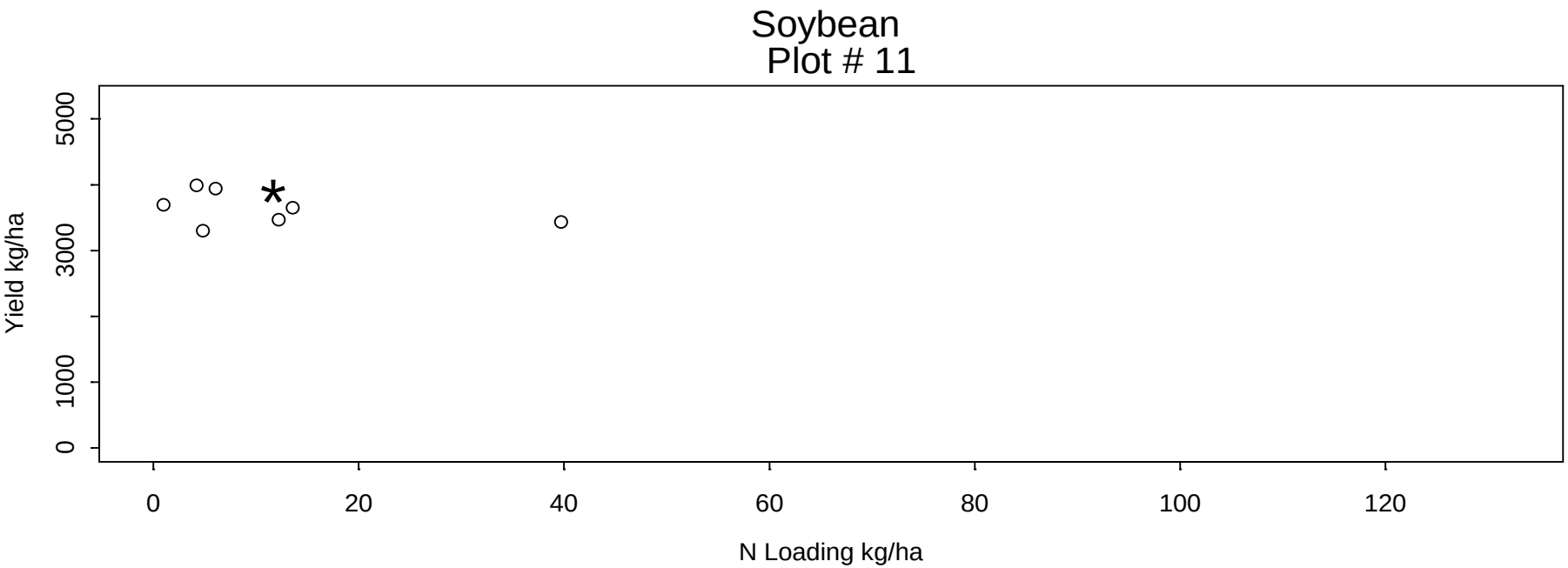

Corn
Plot # 9
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

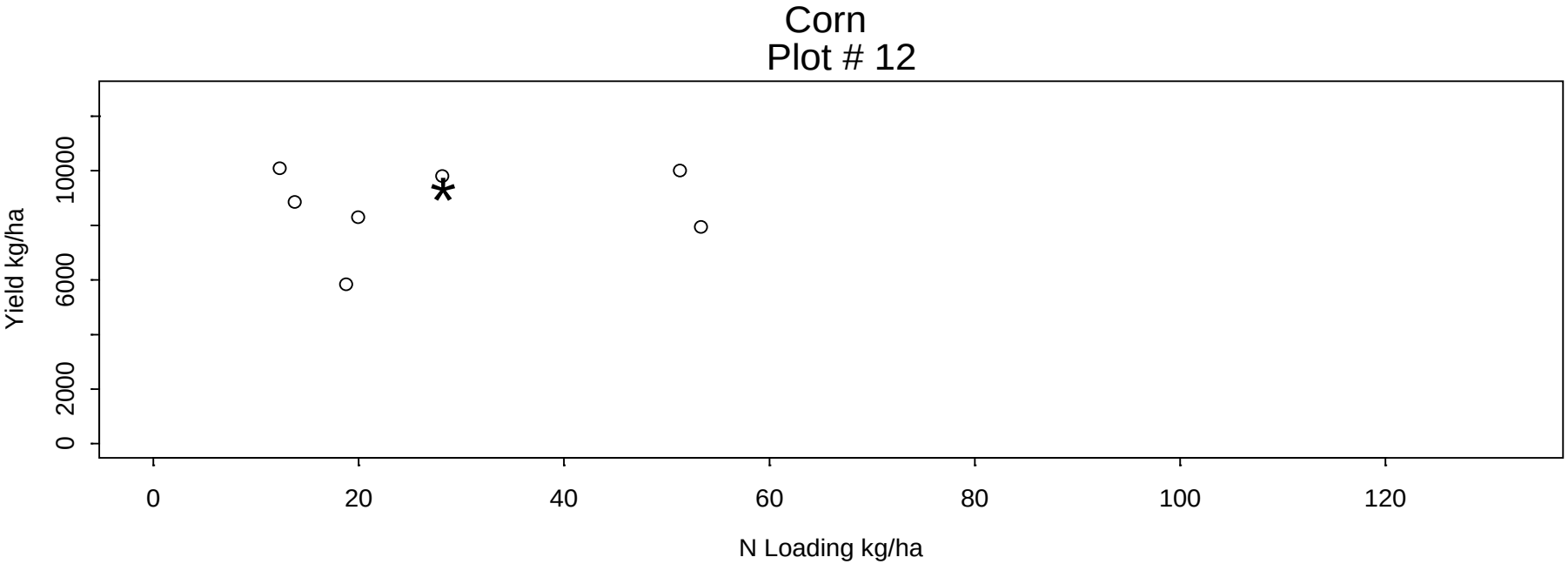

Soybean
Plot # 9
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

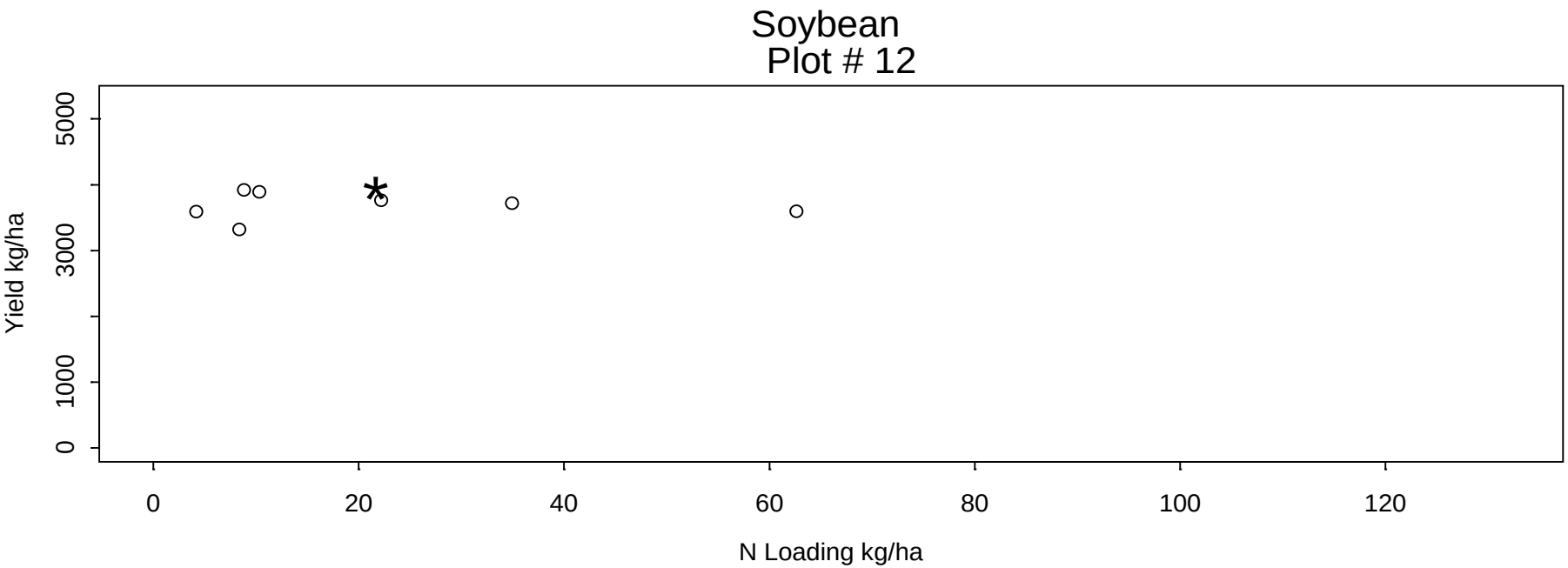

Corn
Plot # 10
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

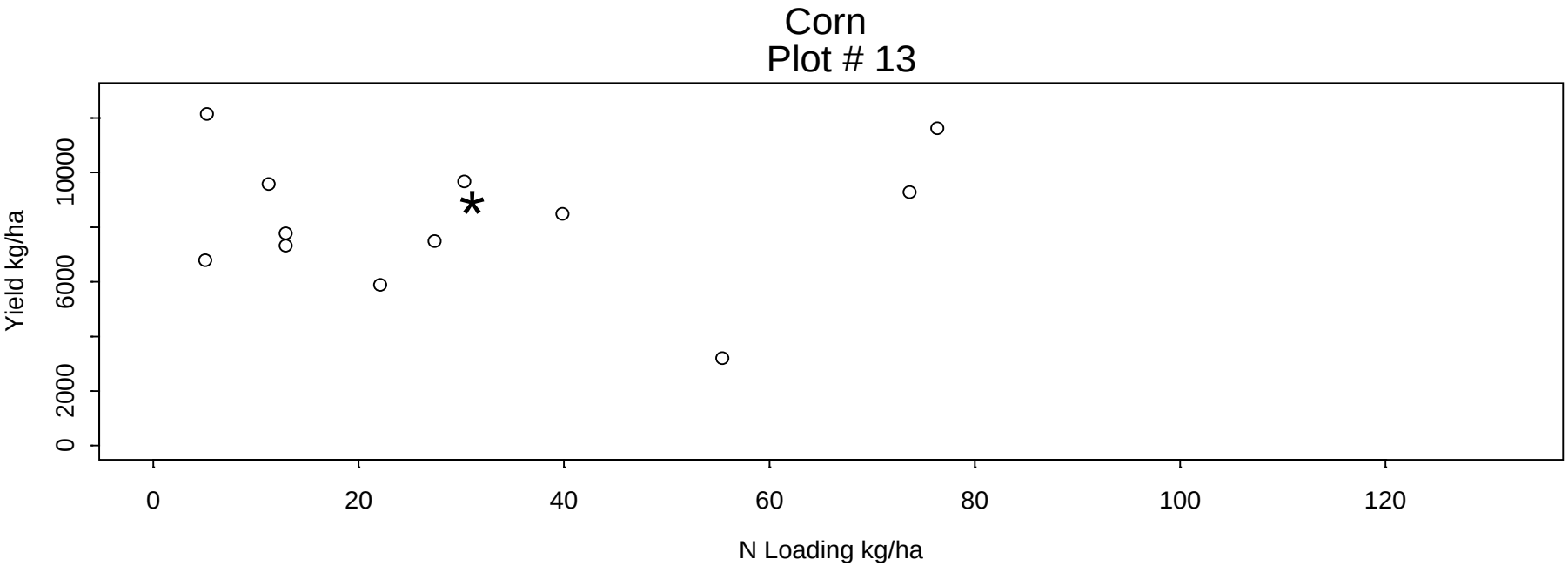

Soybean
Plot # 10
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

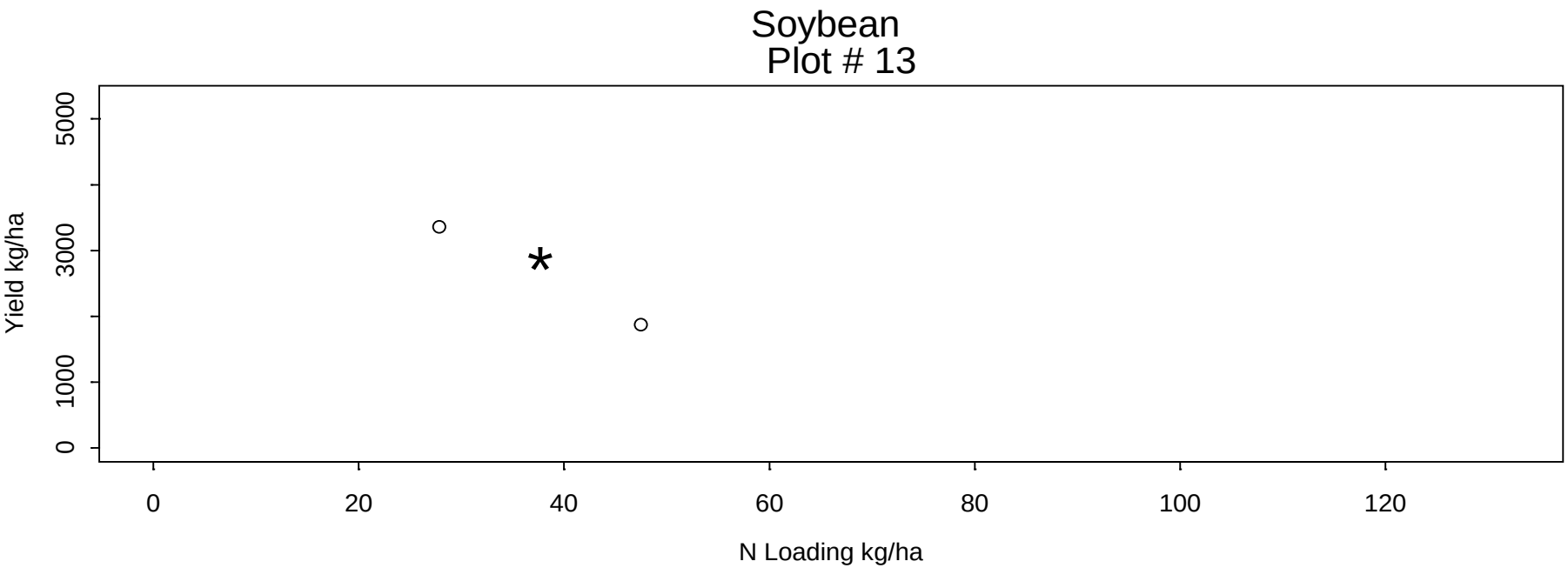

Corn
Plot # 11
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

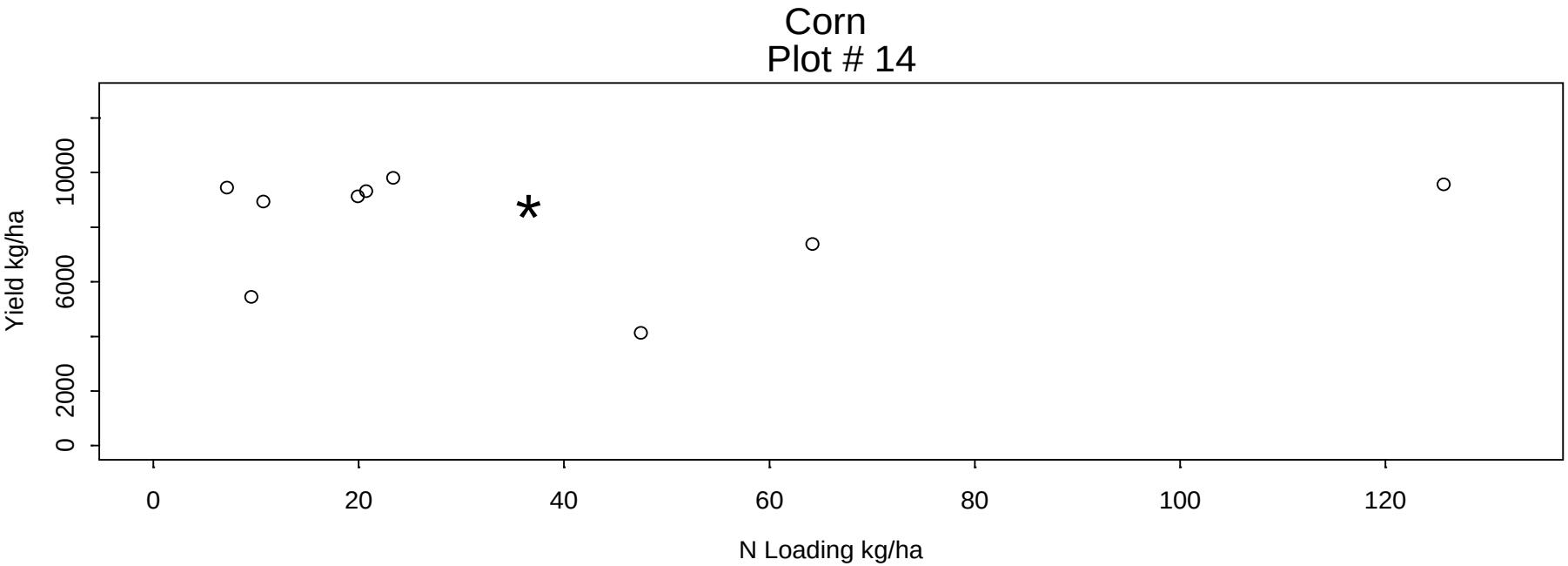

Soybean
Plot # 11
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

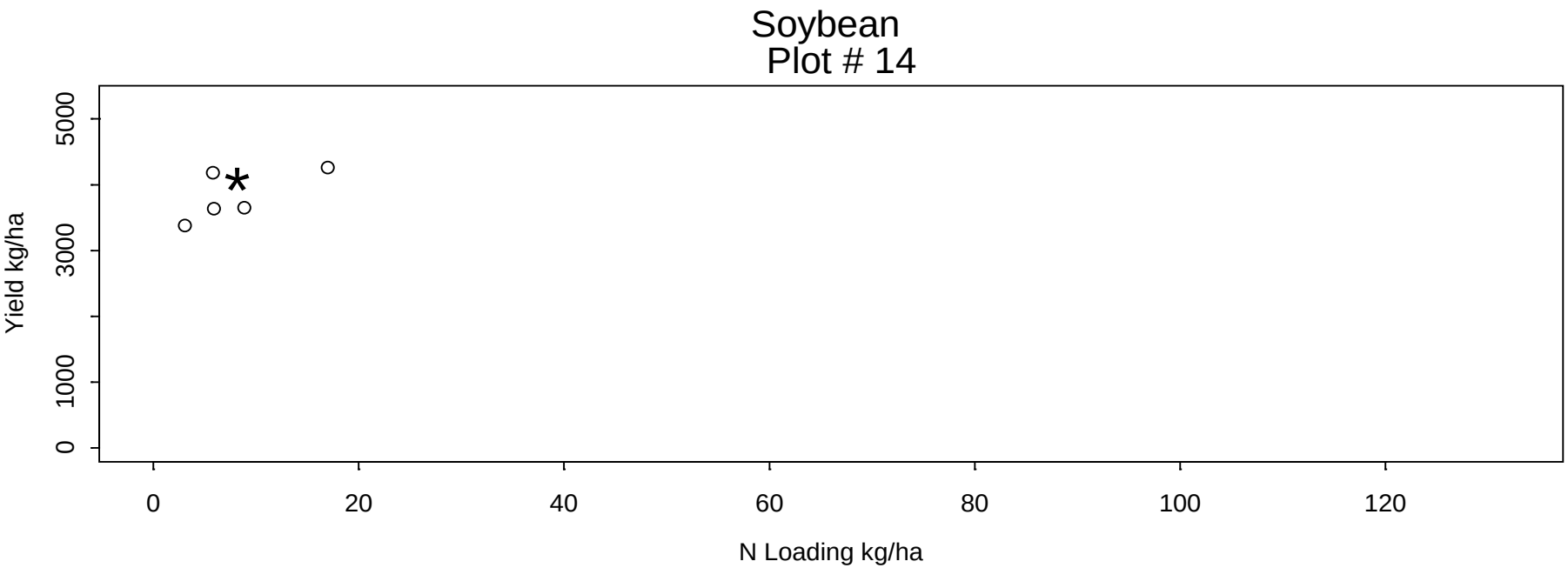

Corn
Plot # 12
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

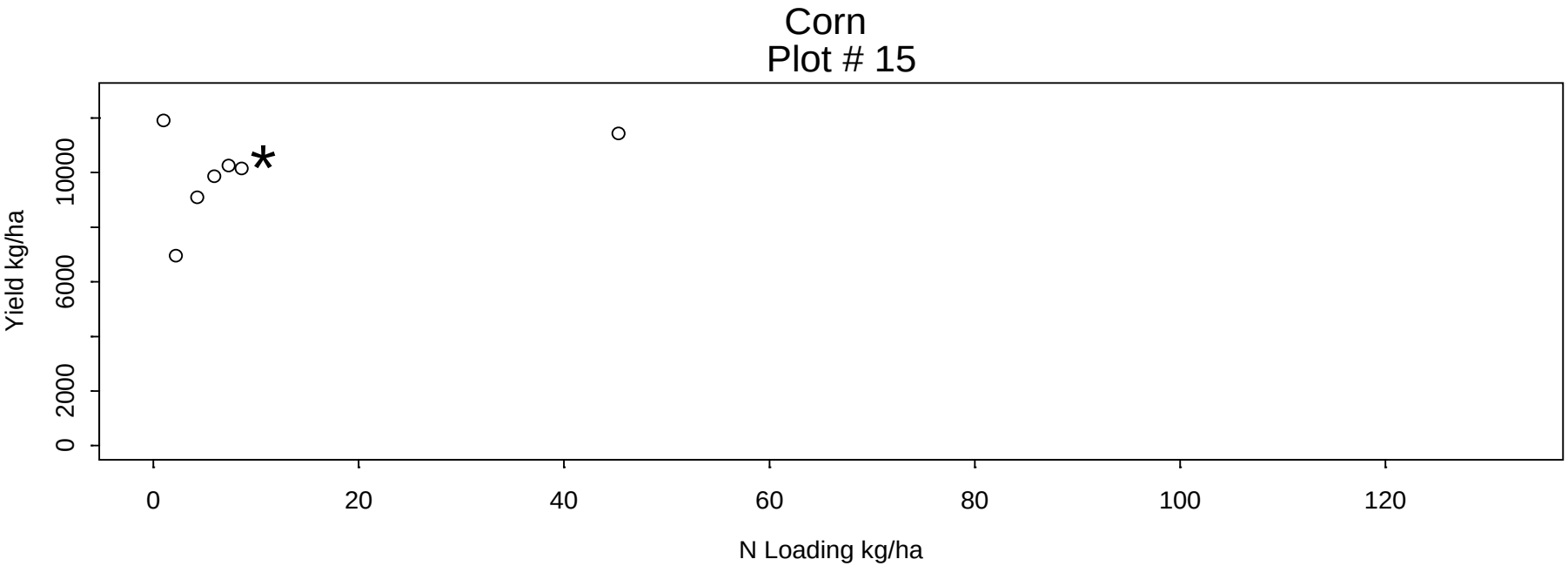

Soybean
Plot # 12
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

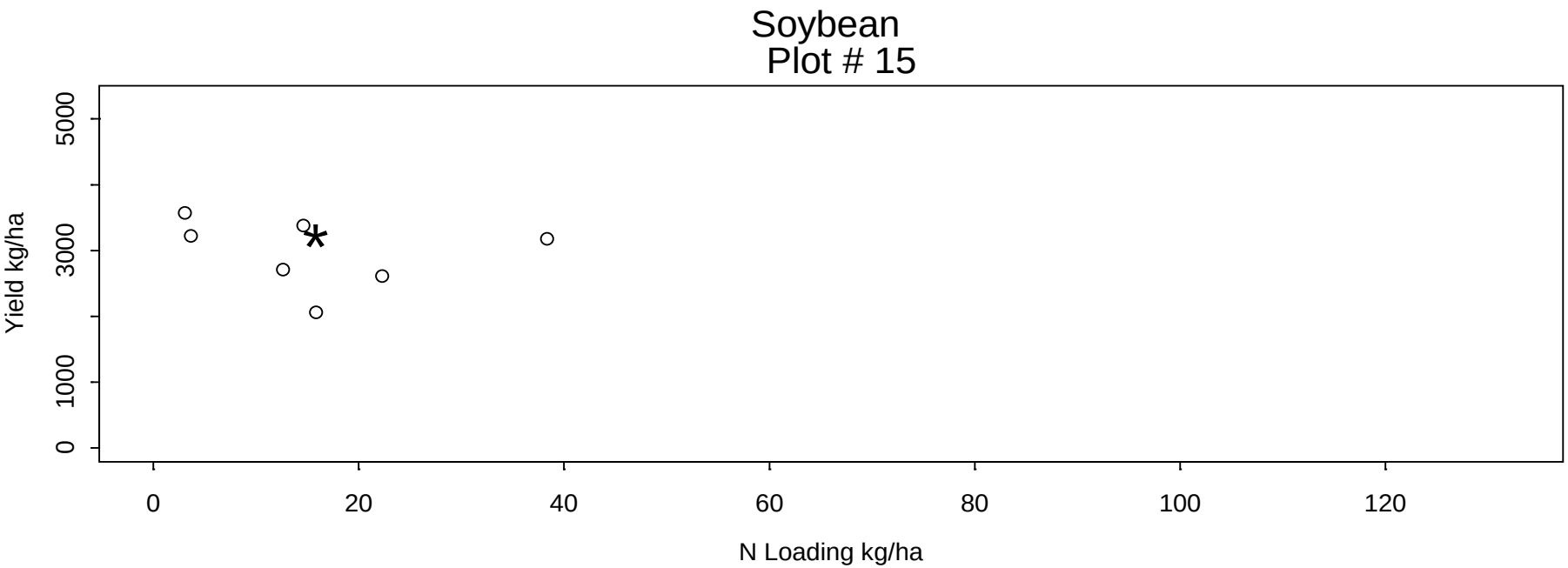

Corn
Plot # 13
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

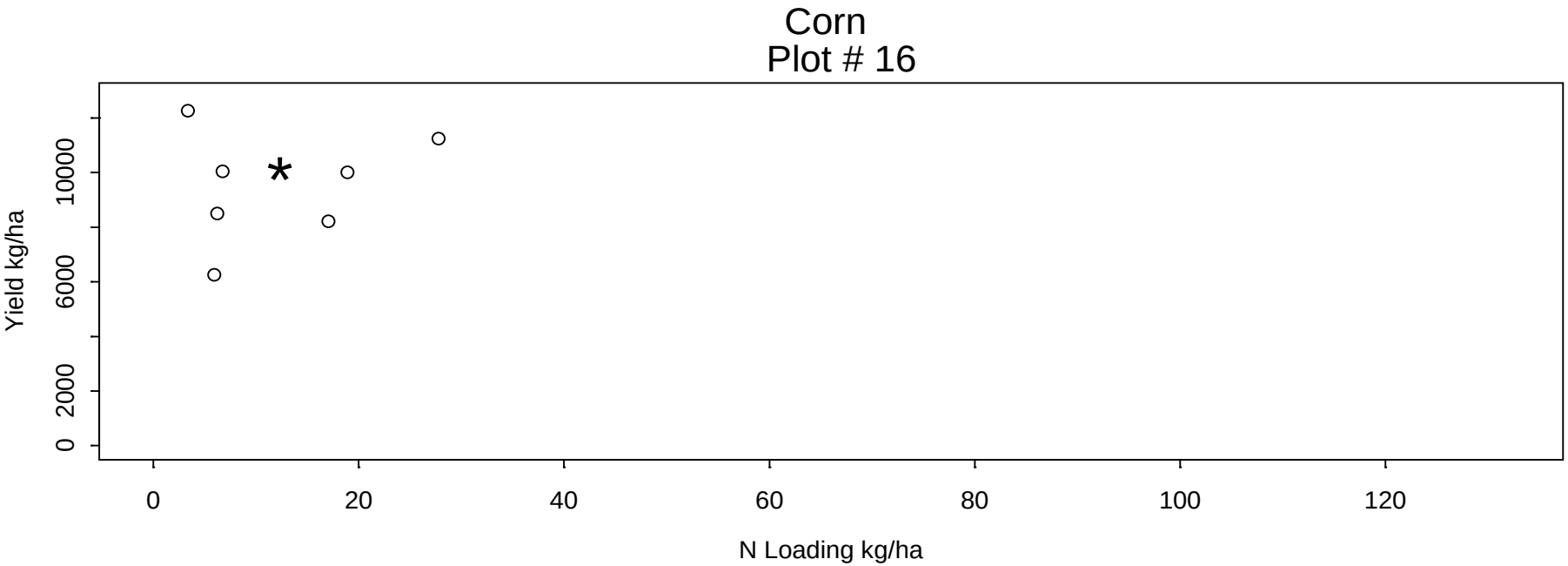

Soybean
Plot # 13
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

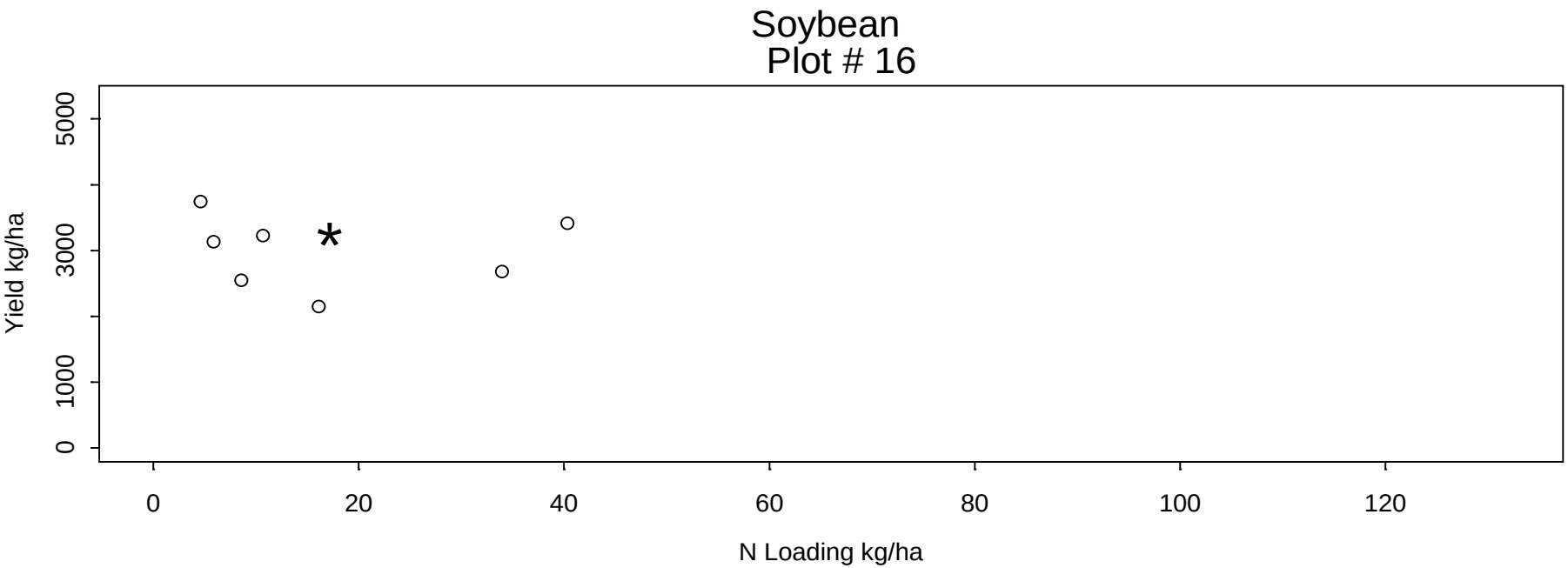

Corn
Plot # 14
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

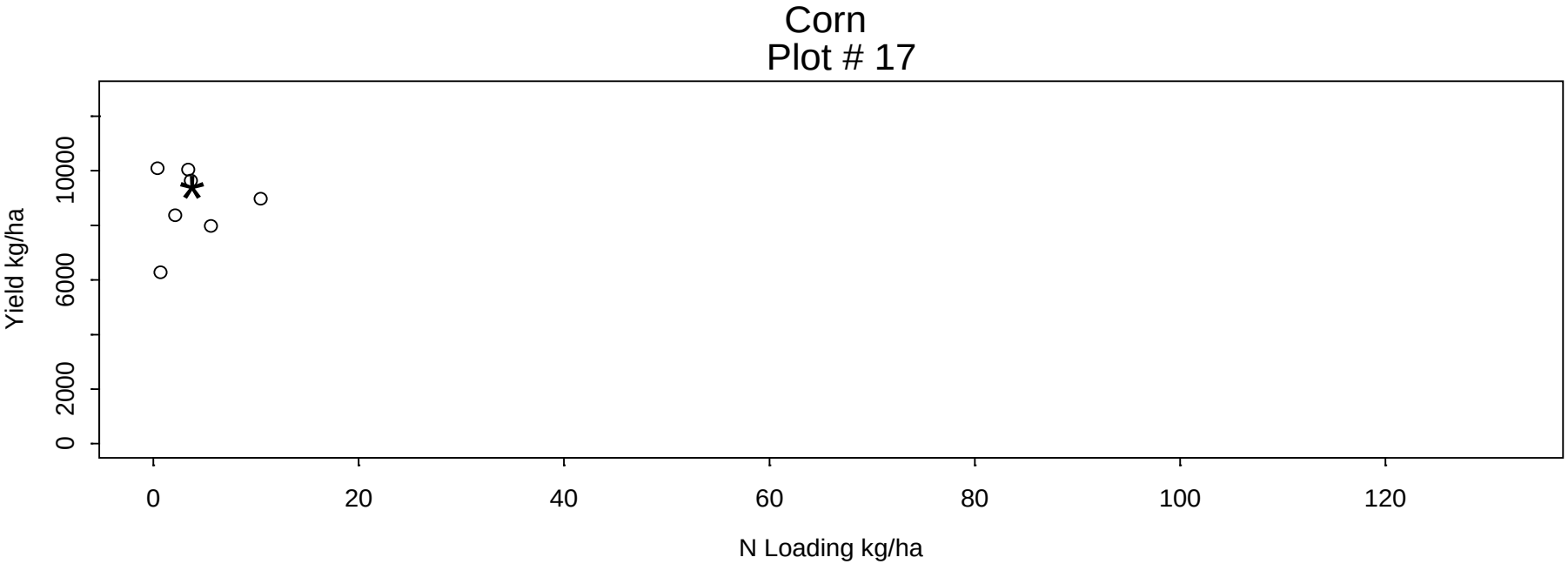

Soybean
Plot # 14
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

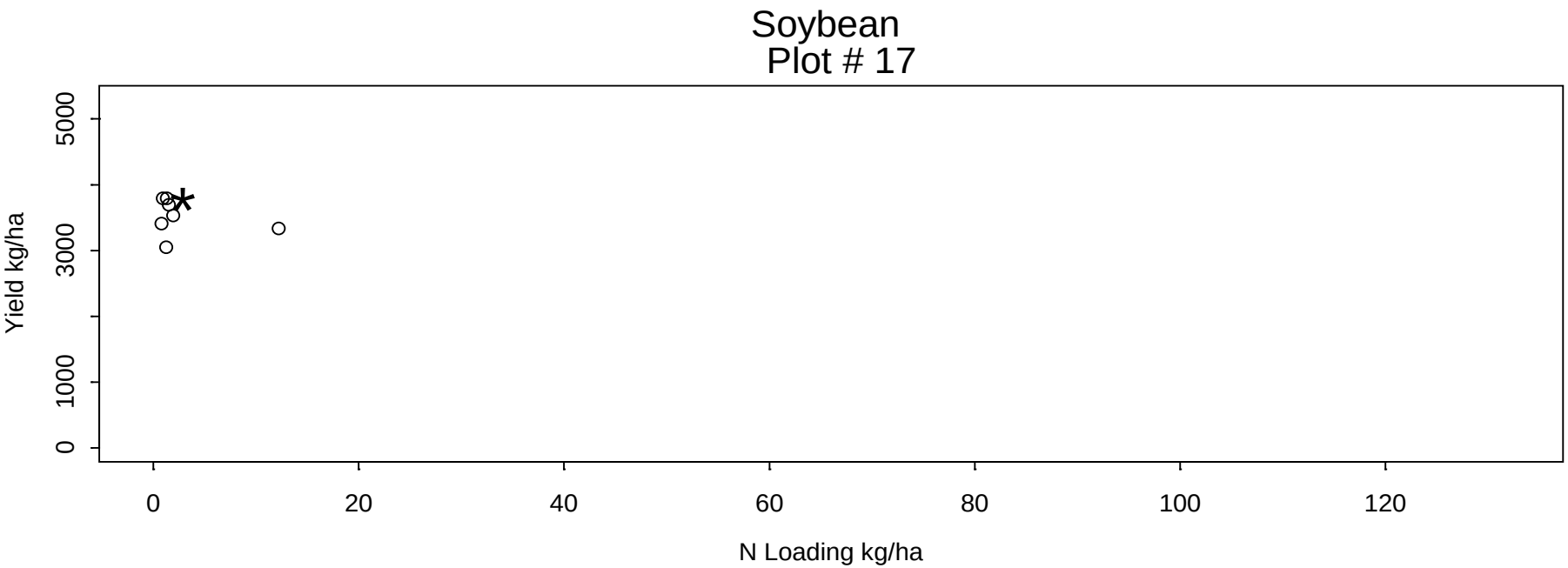

Corn
Plot # 15
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

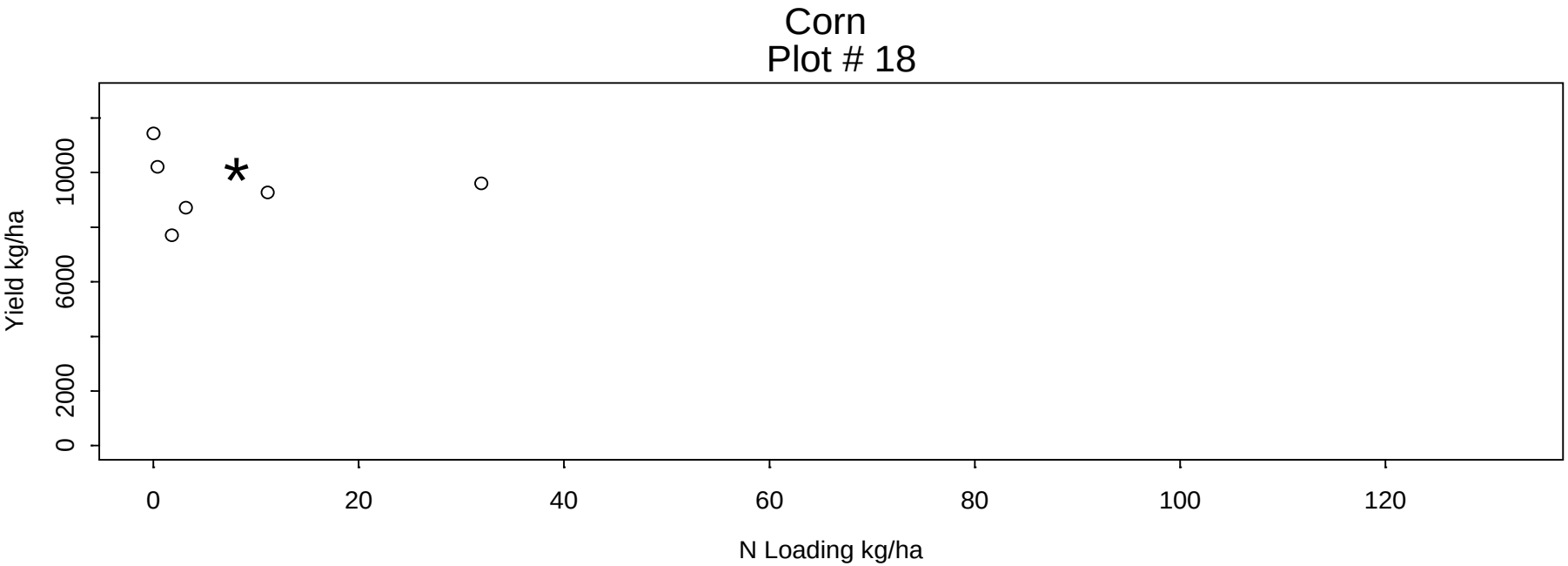

Soybean
Plot # 15
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

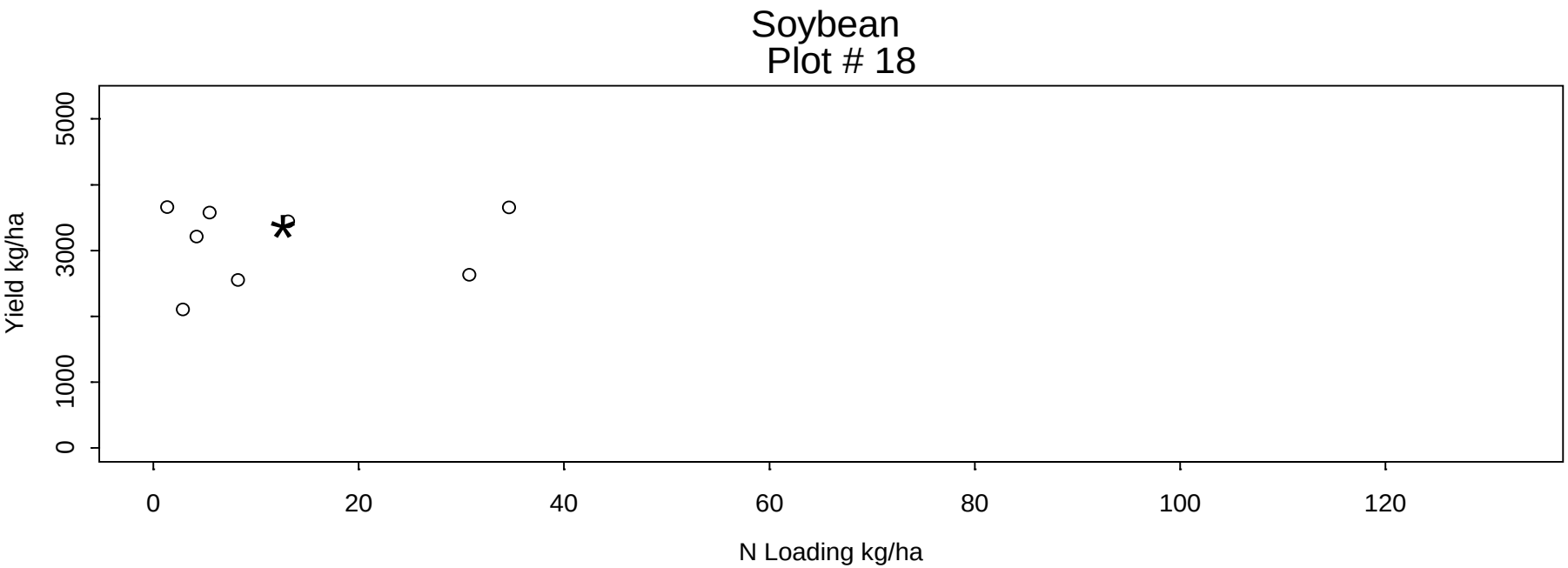

Corn
Plot # 16
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

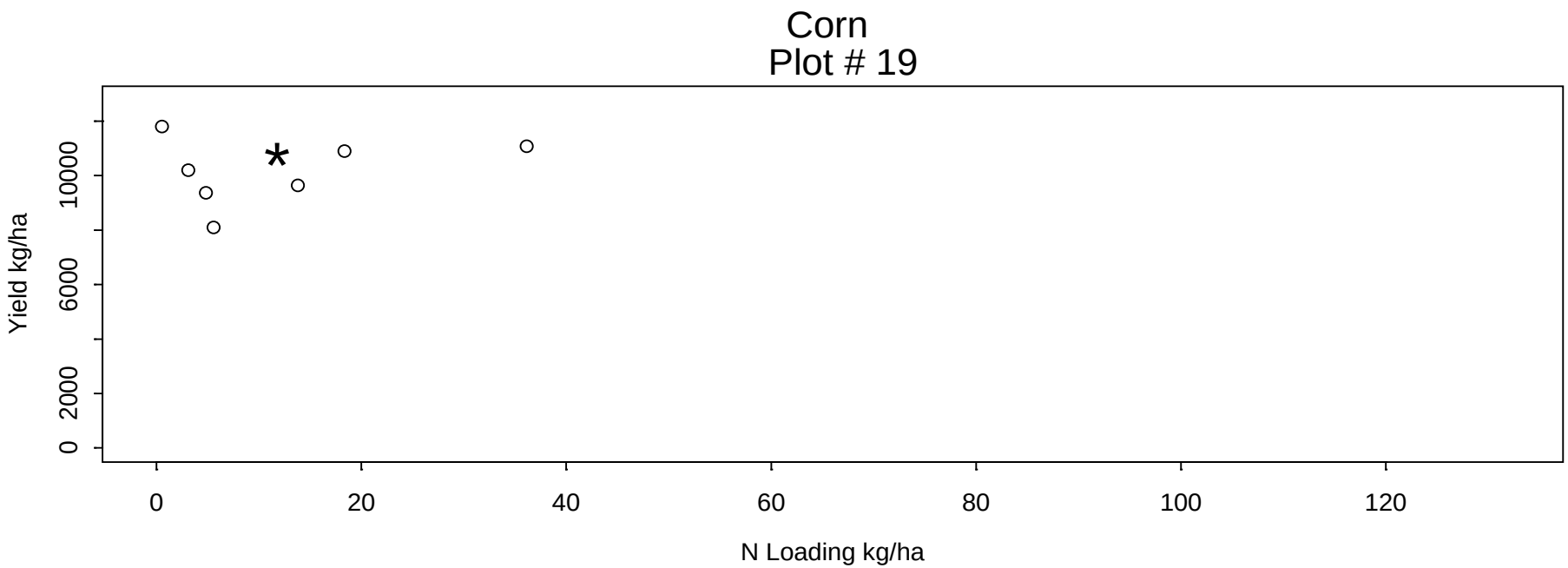

Soybean
Plot # 16
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

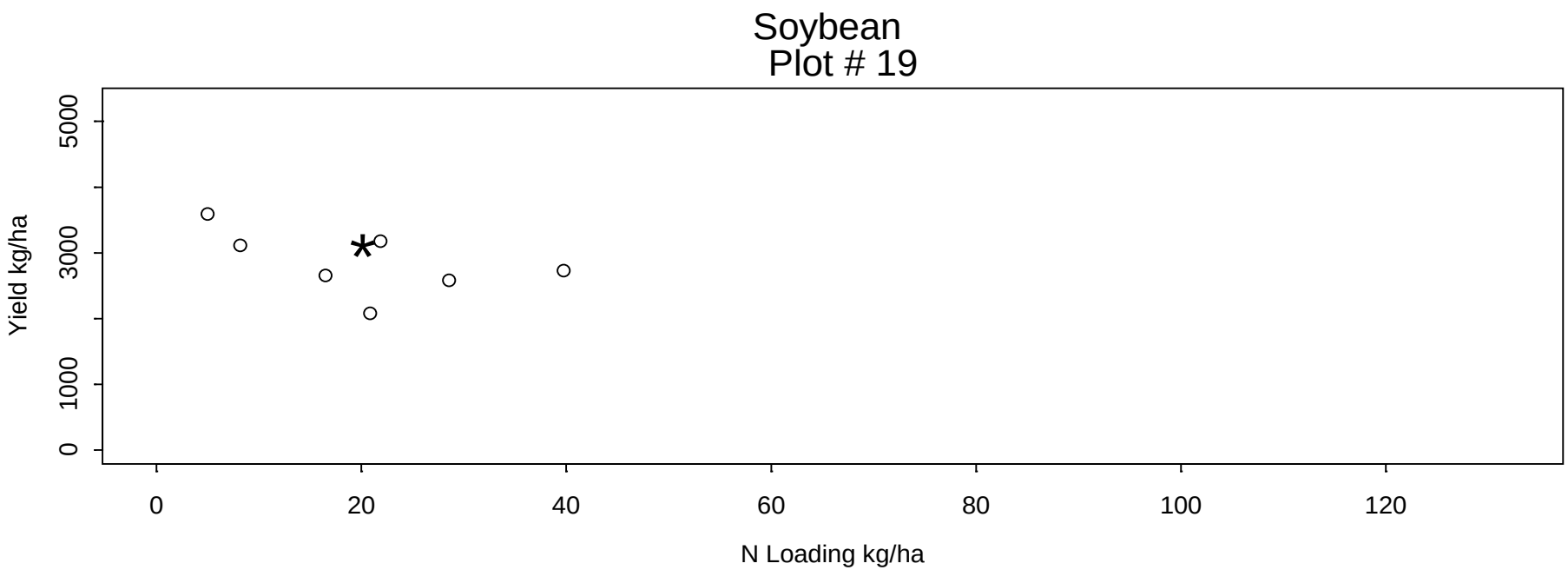

Corn
Plot # 17
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

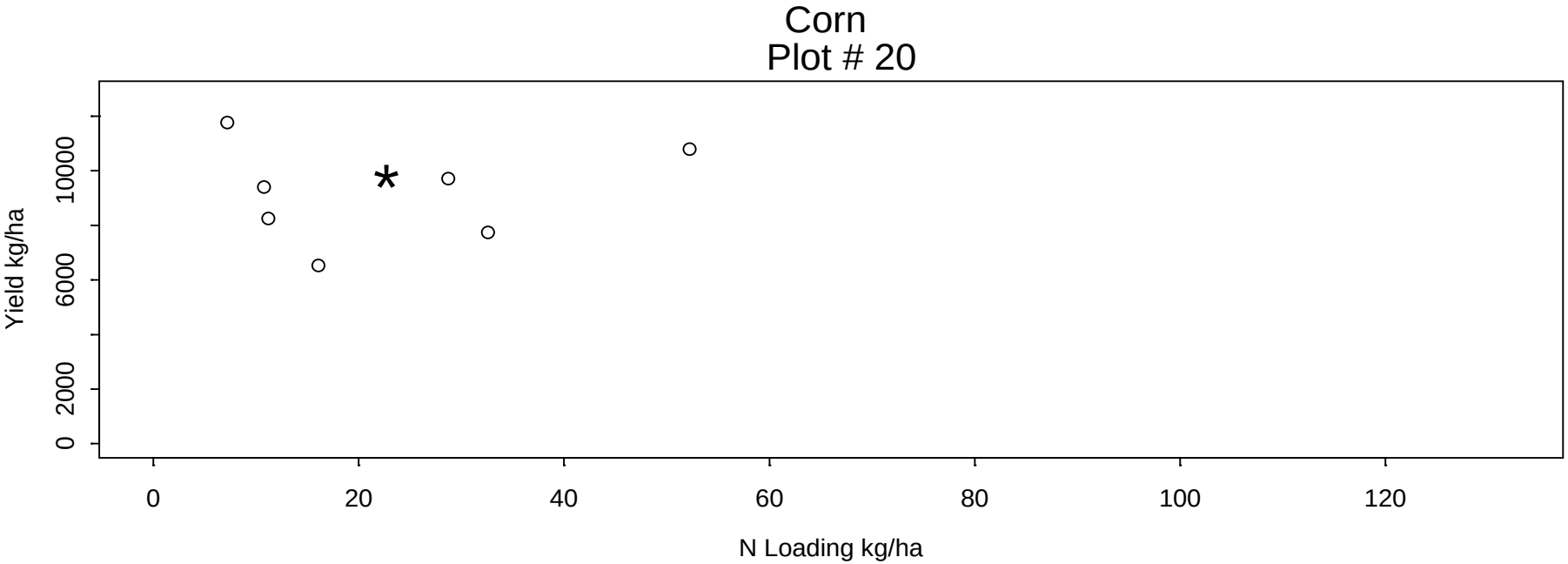

Soybean
Plot # 17
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

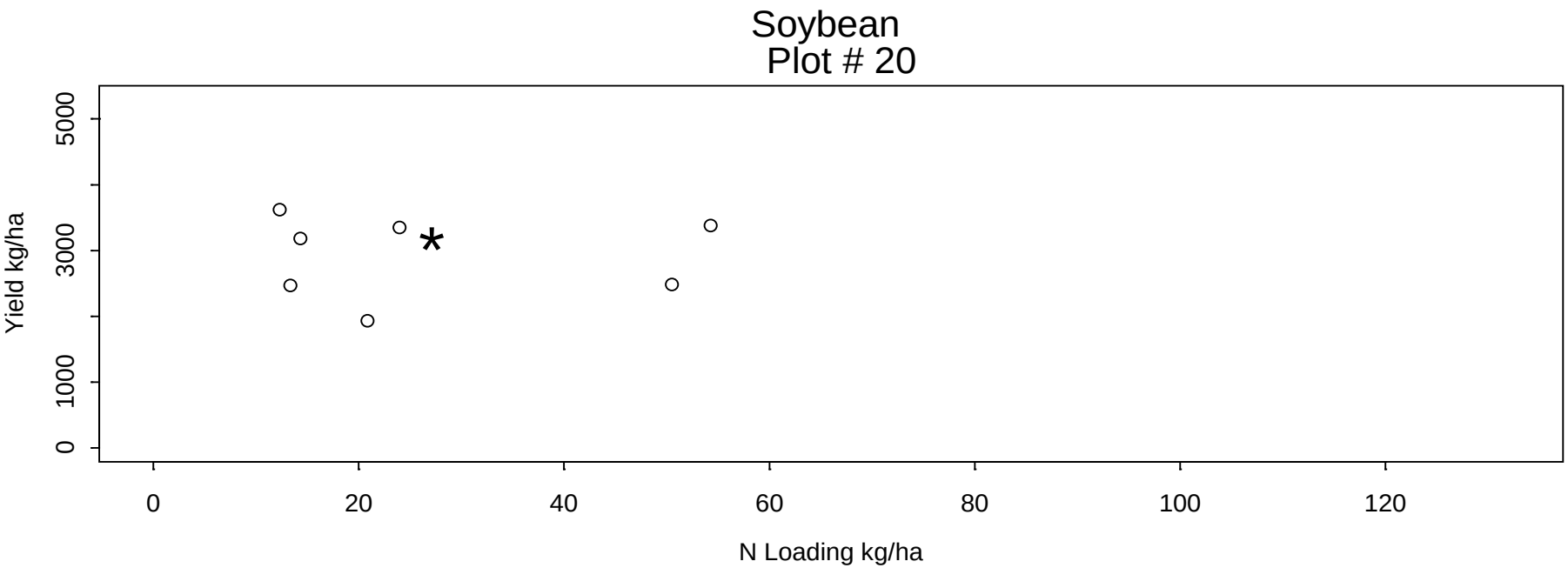

Corn
Plot # 18
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

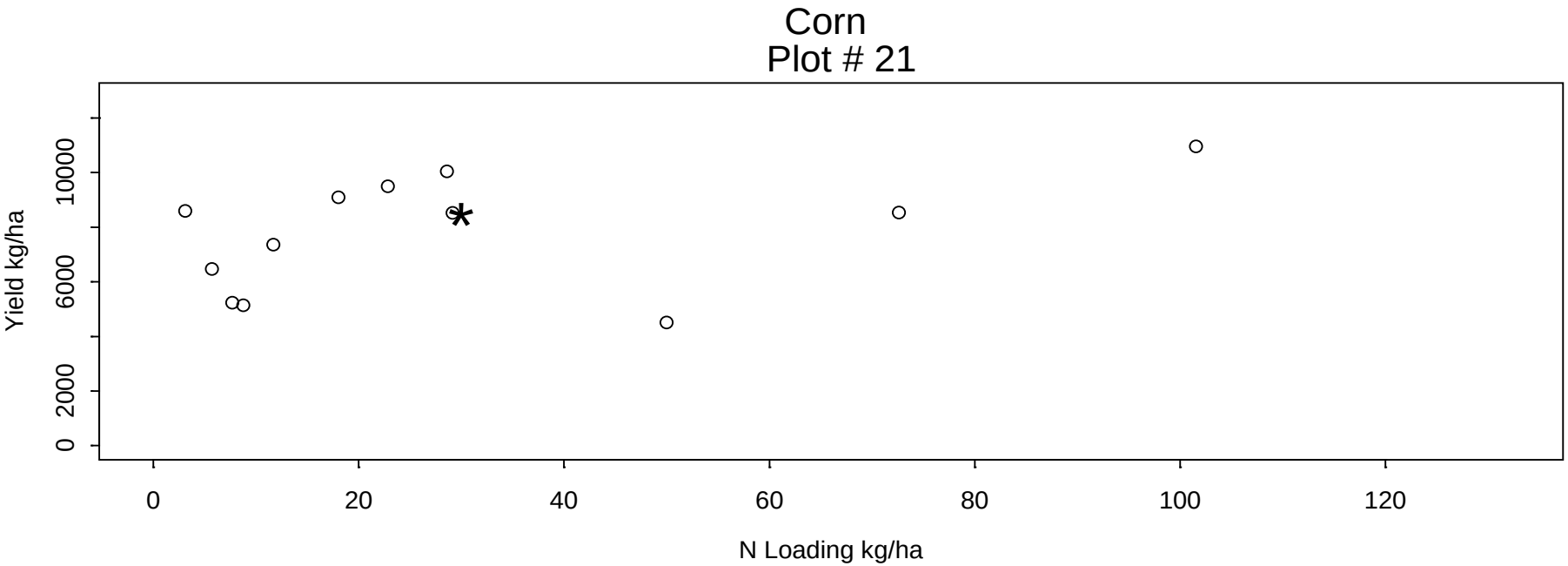

Soybean
Plot # 18
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

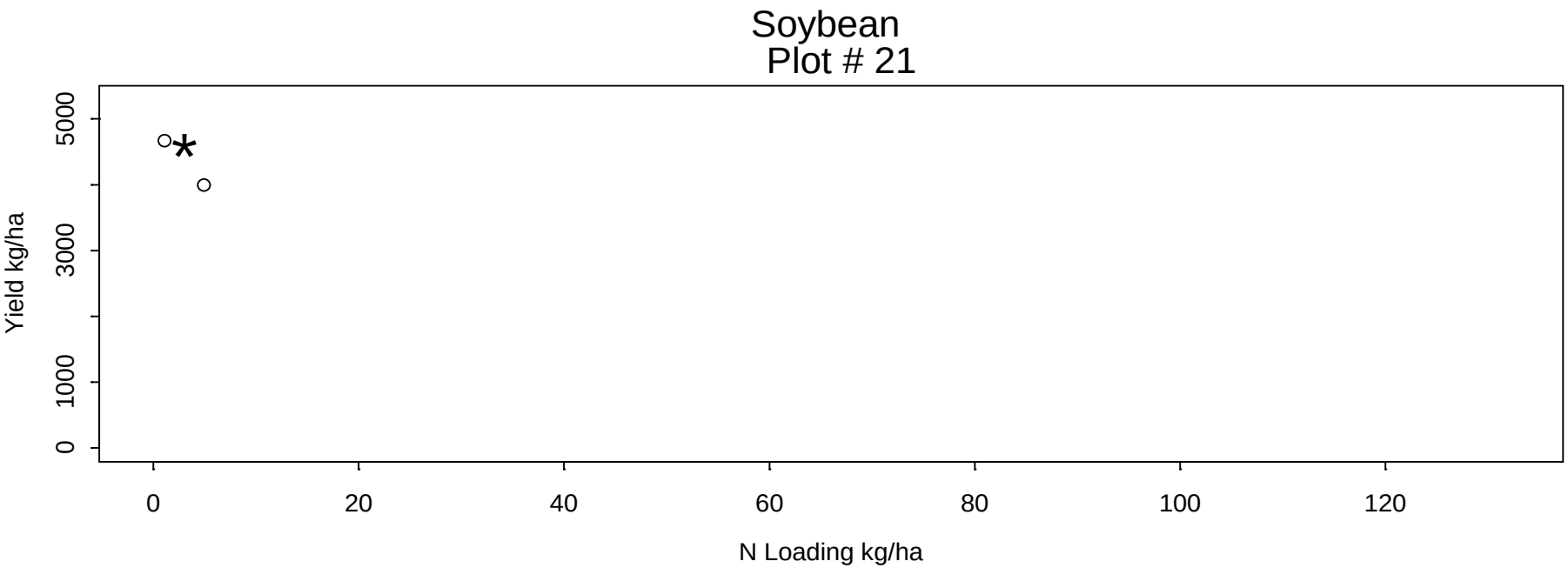

Corn
Plot # 19
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

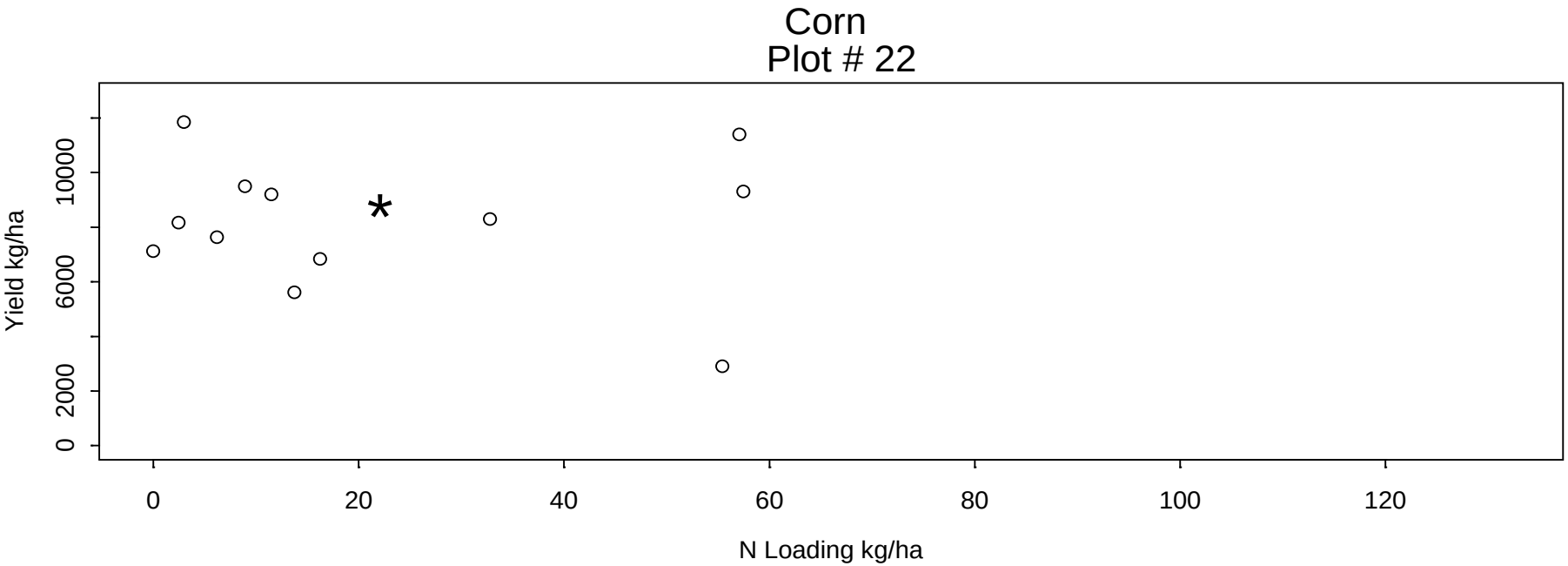

Soybean
Plot # 19
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

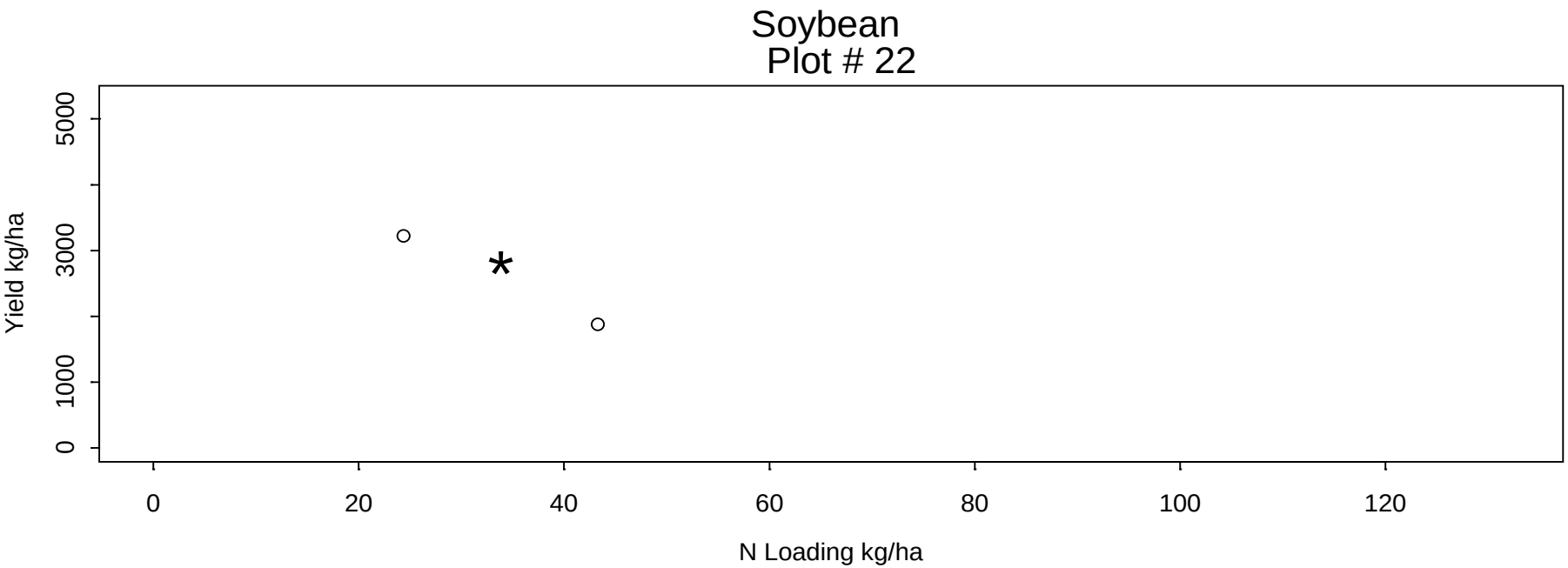

Corn
Plot # 20
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

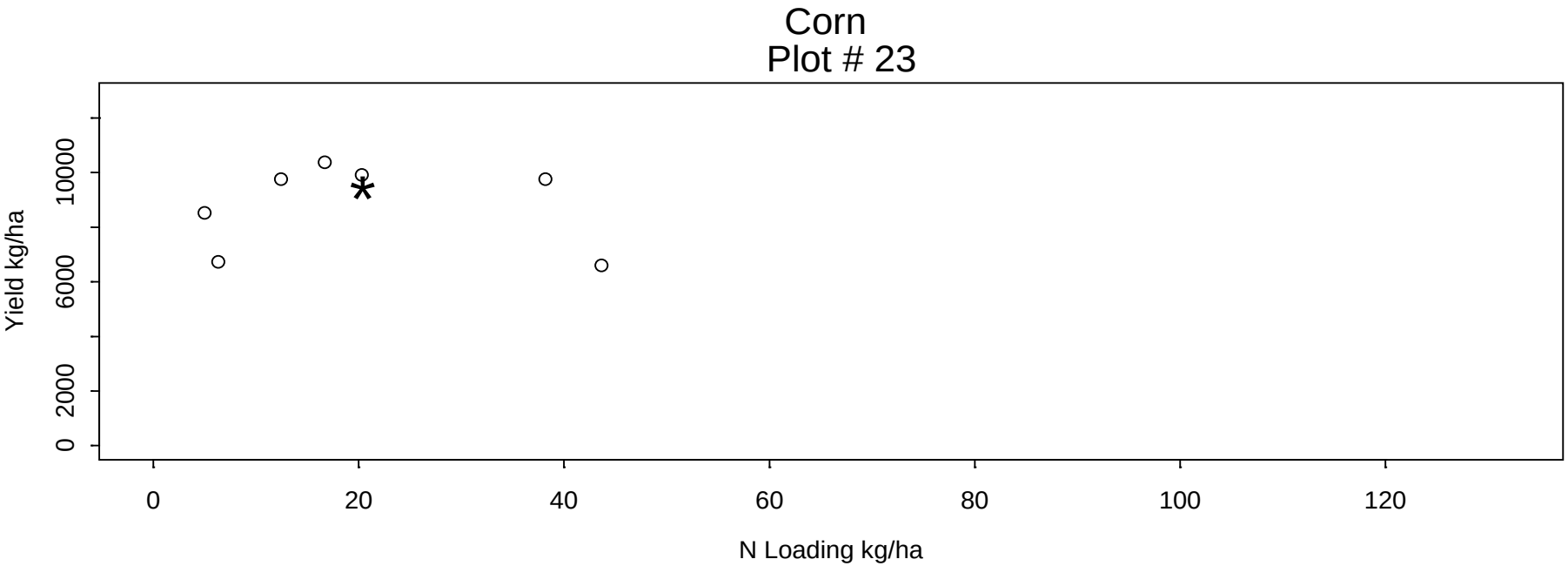

Soybean
Plot # 20
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

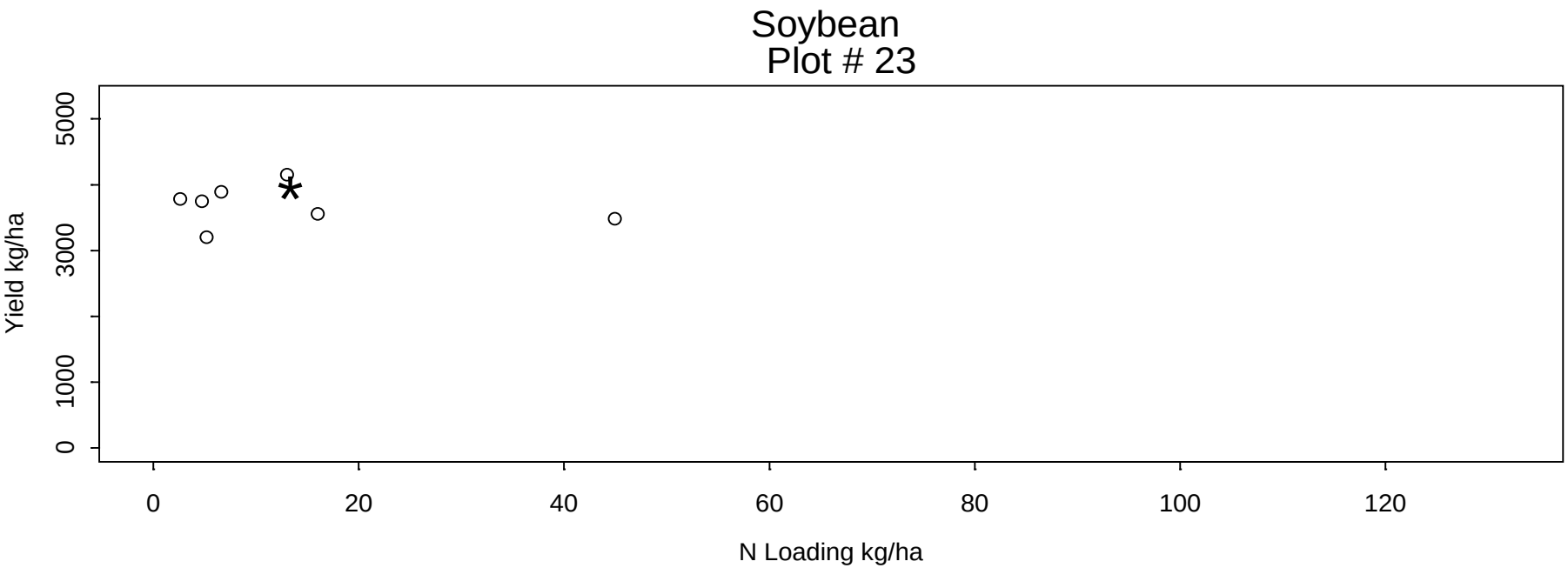

Corn
Plot # 21
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

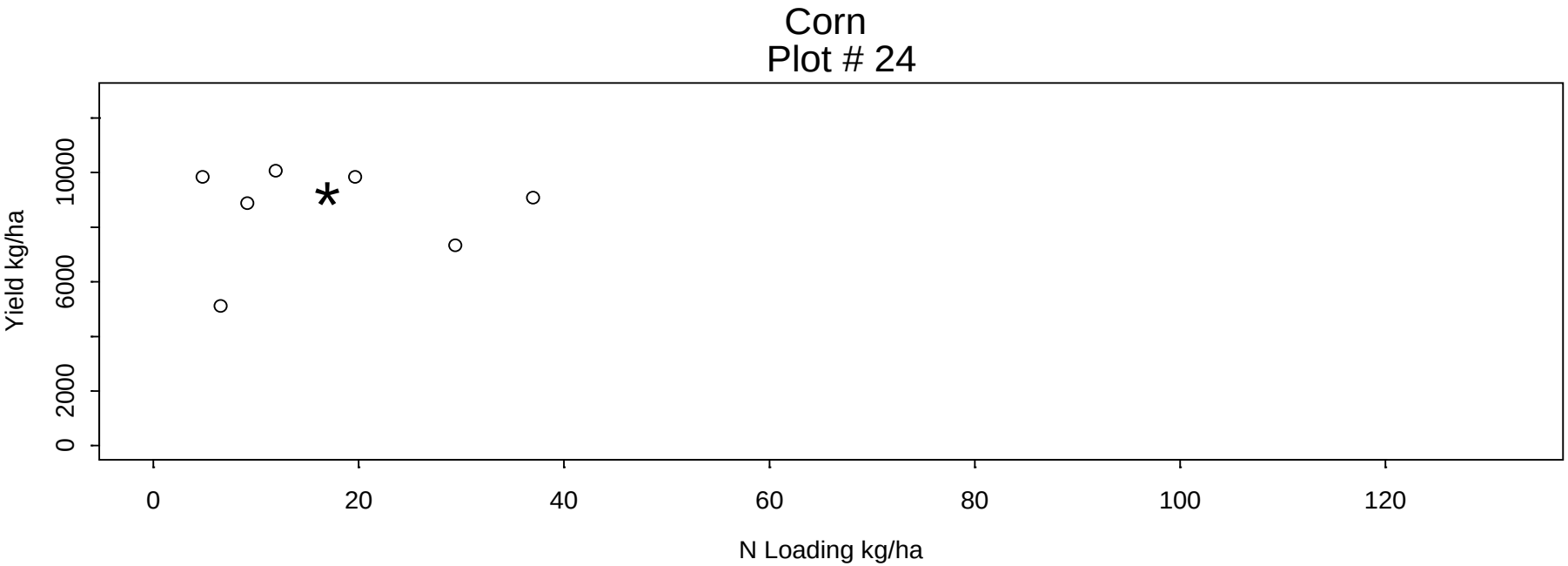

Soybean
Plot # 21
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

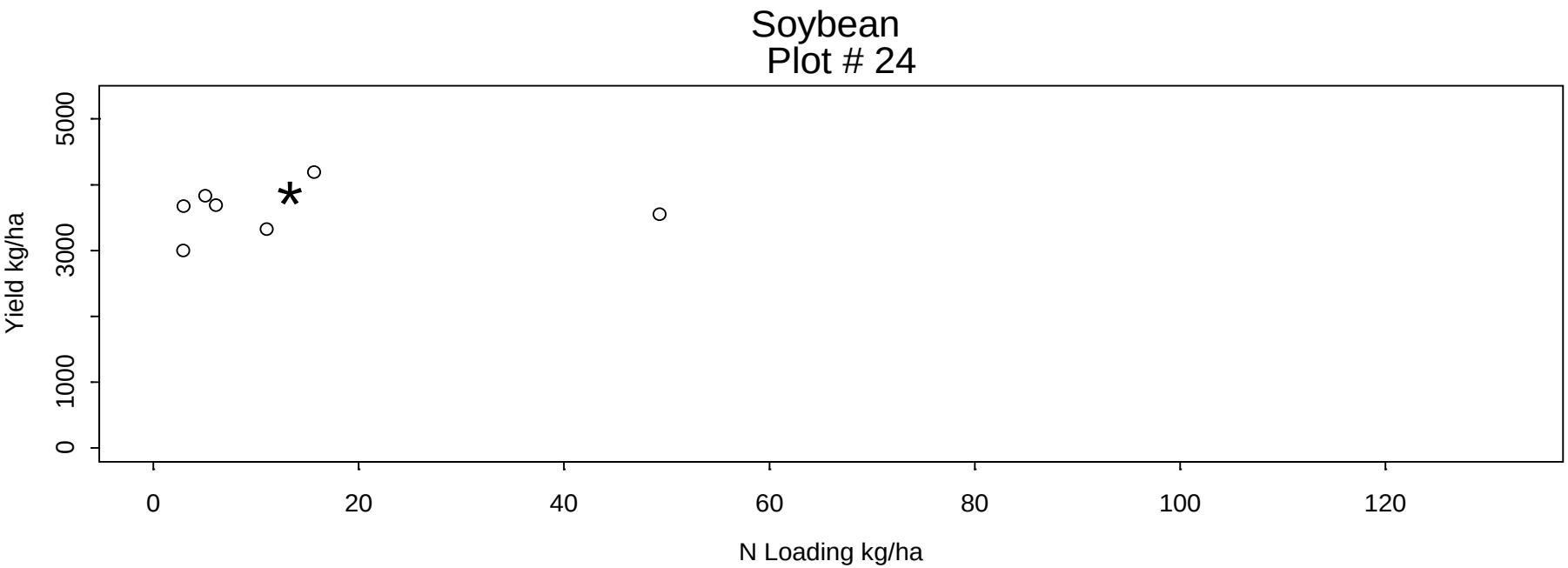

Corn
Plot # 22
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

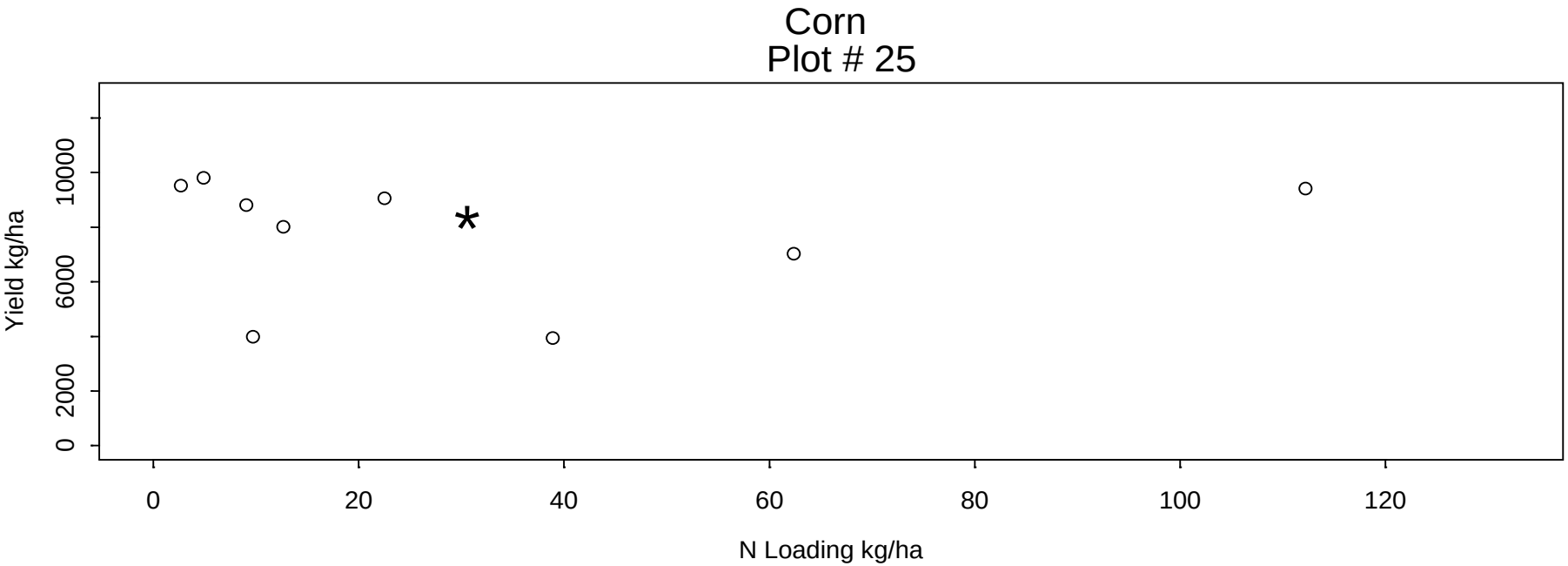

Soybean
Plot # 22
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

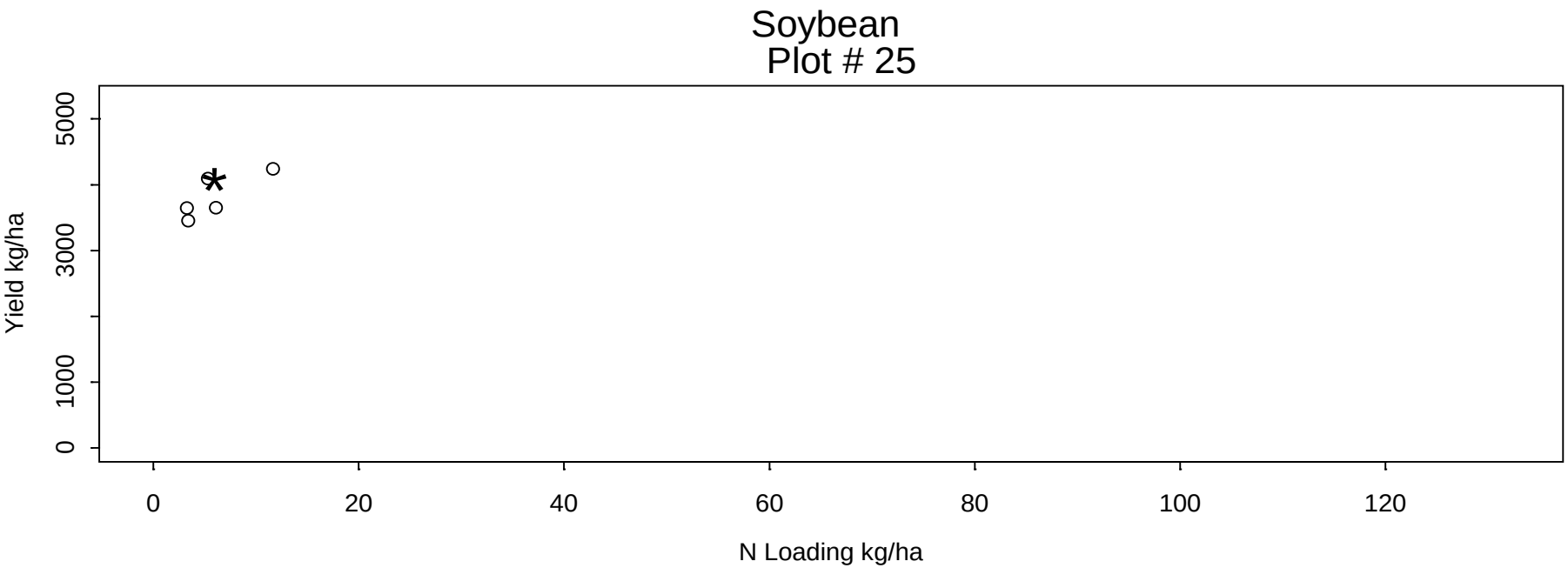

Corn
Plot # 23
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

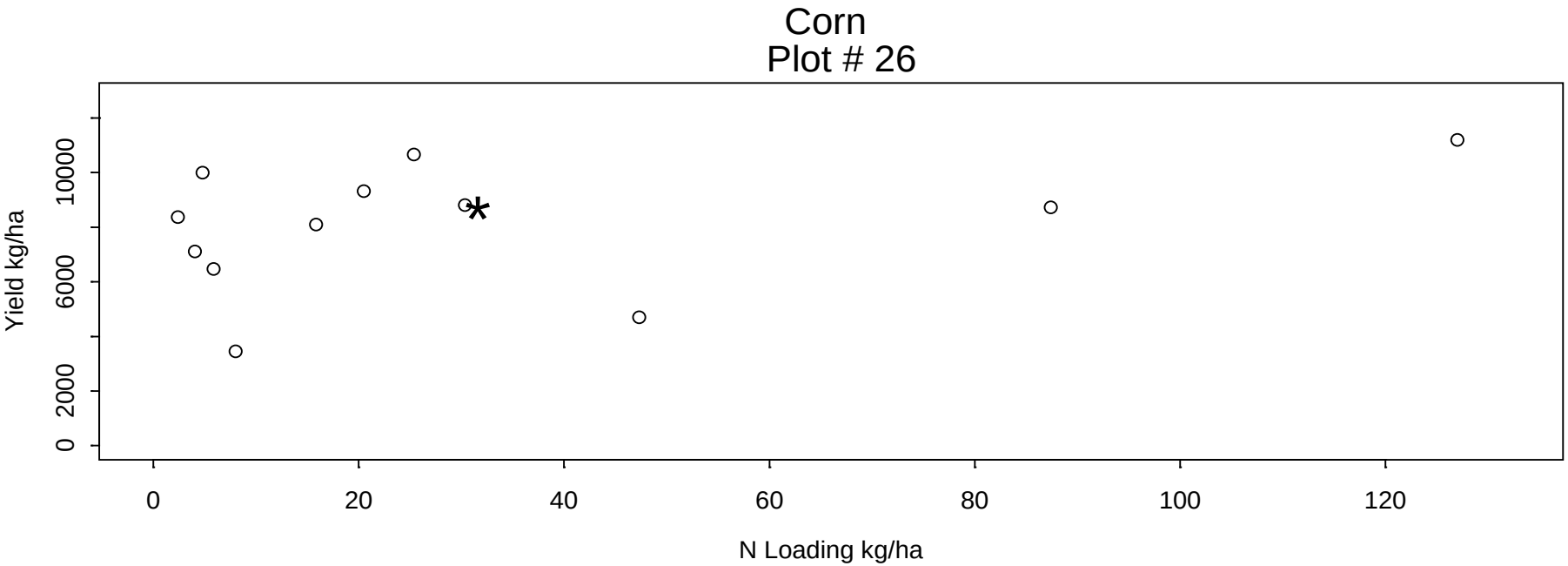

Soybean
Plot # 23
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

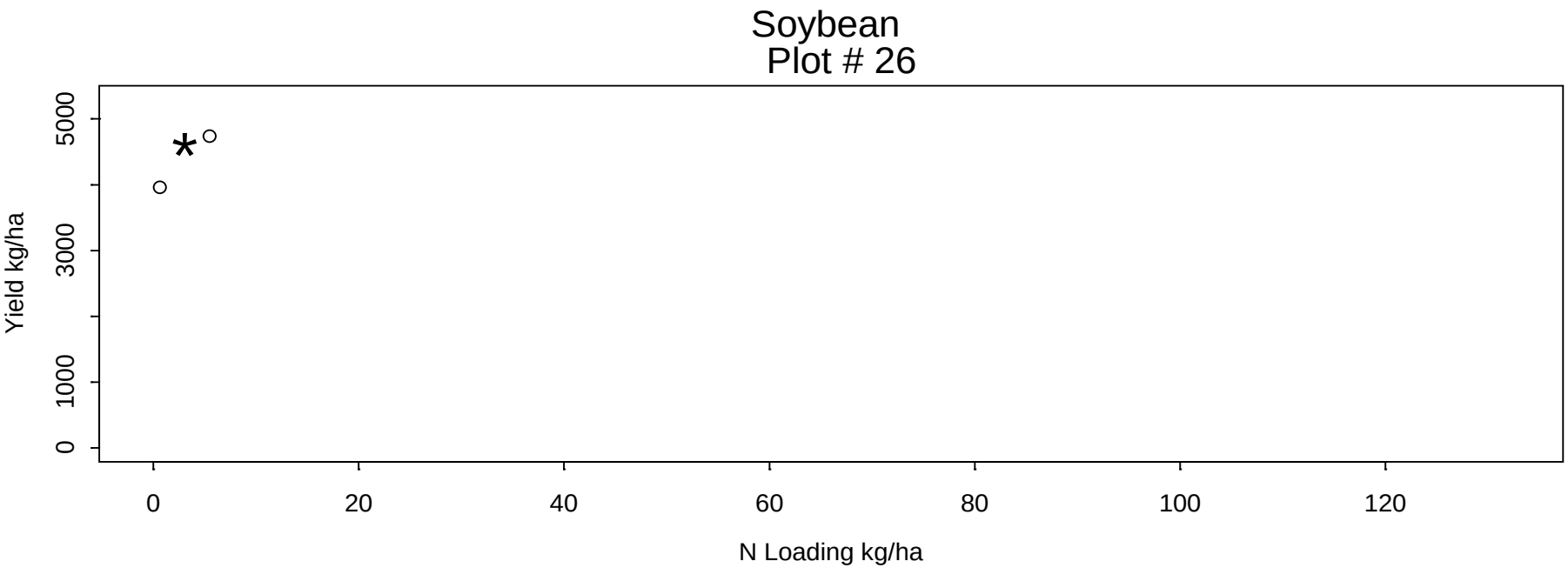

Corn
Plot # 24
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

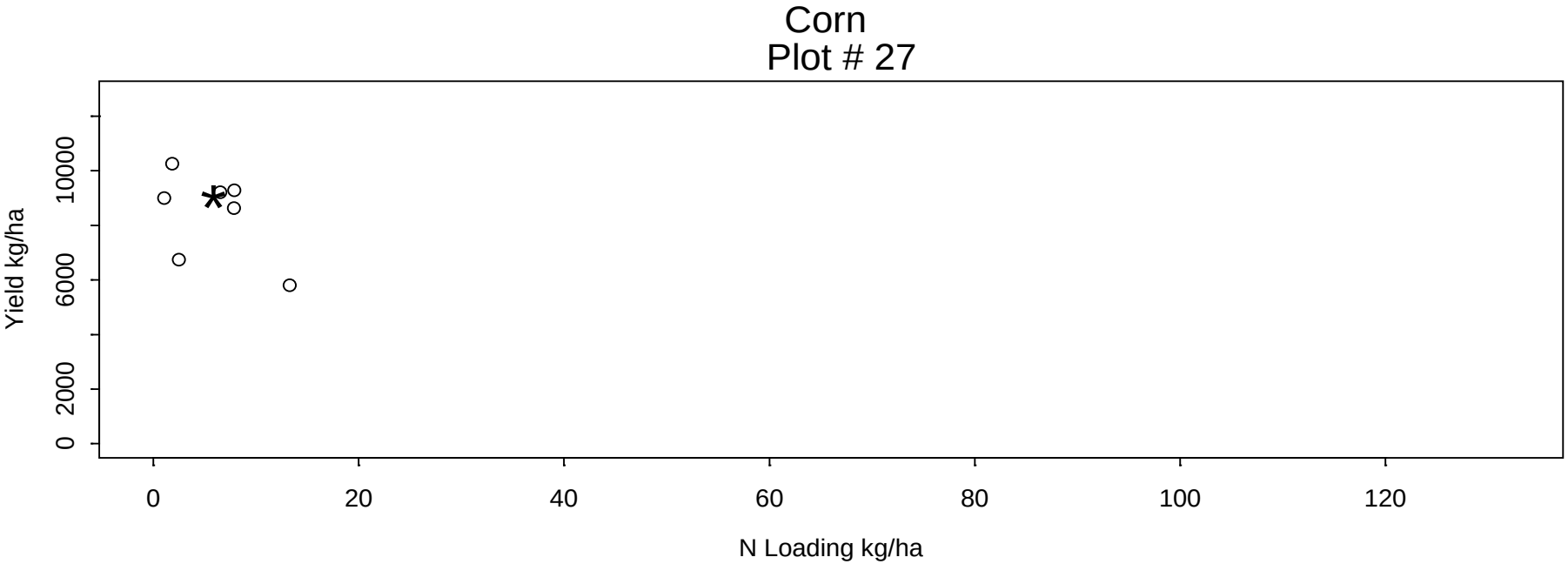

Soybean
Plot # 24
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

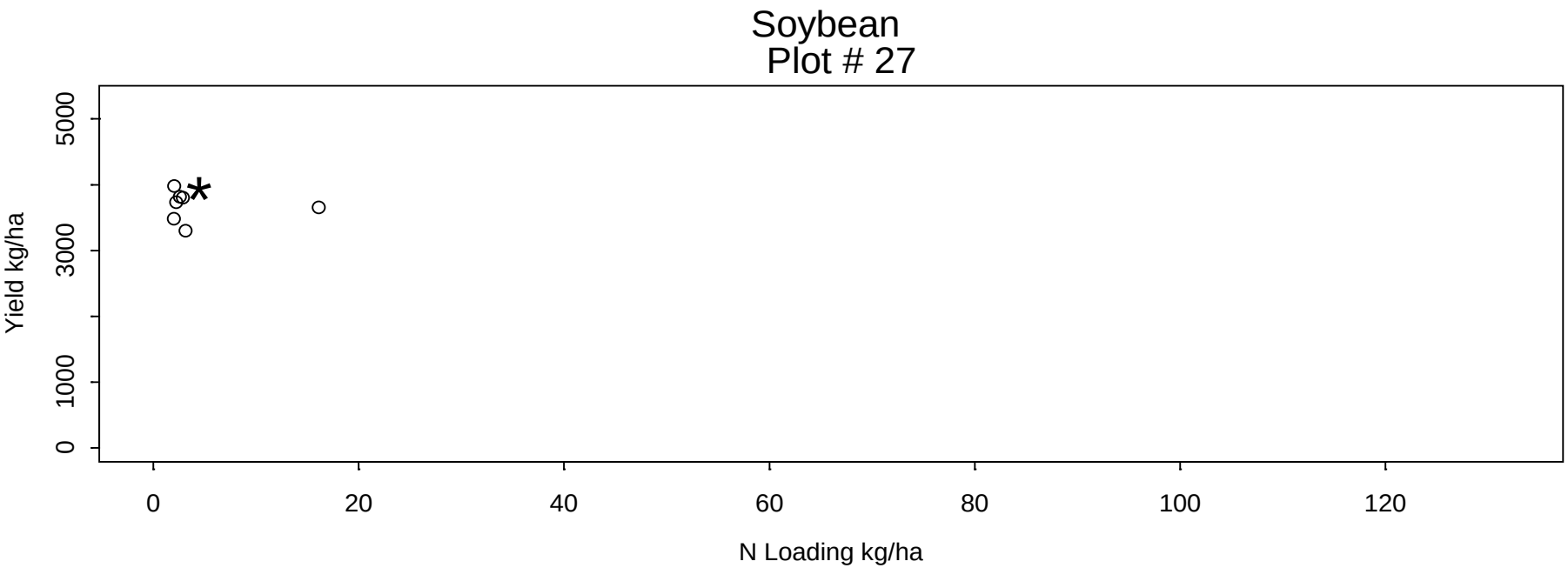

Corn
Plot # 25
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

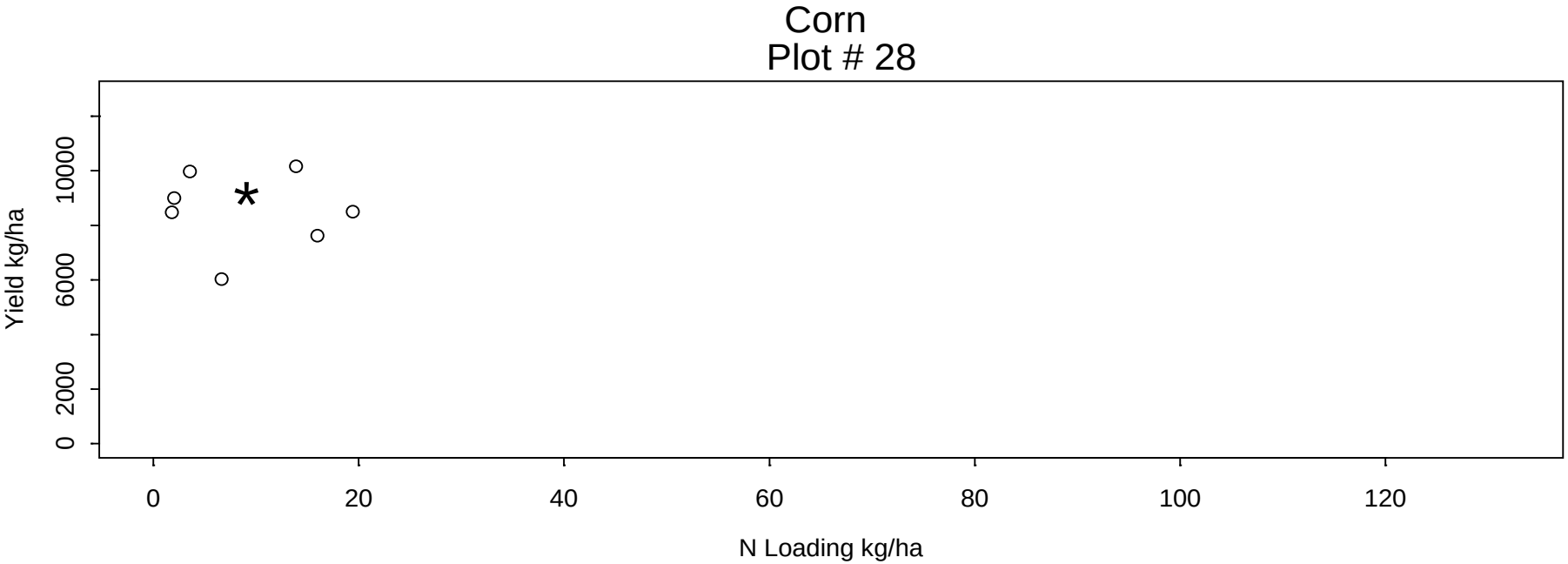

Soybean
Plot # 25
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

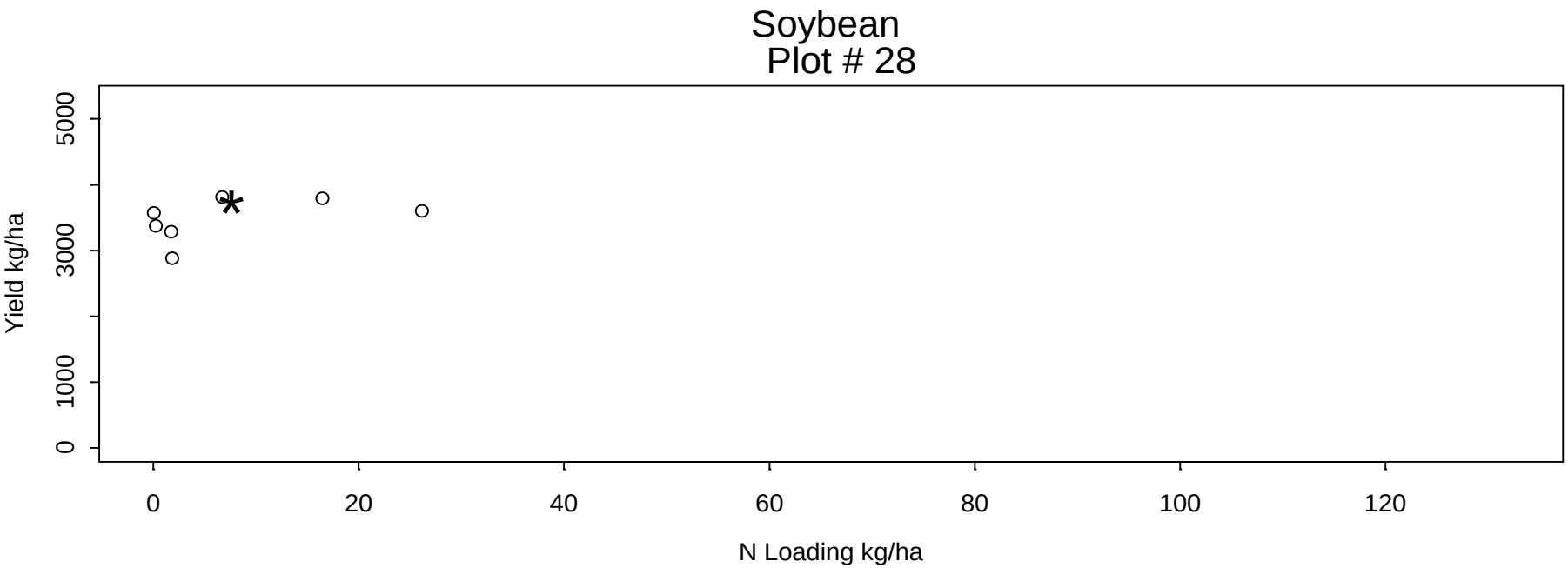

Corn
Plot # 26
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

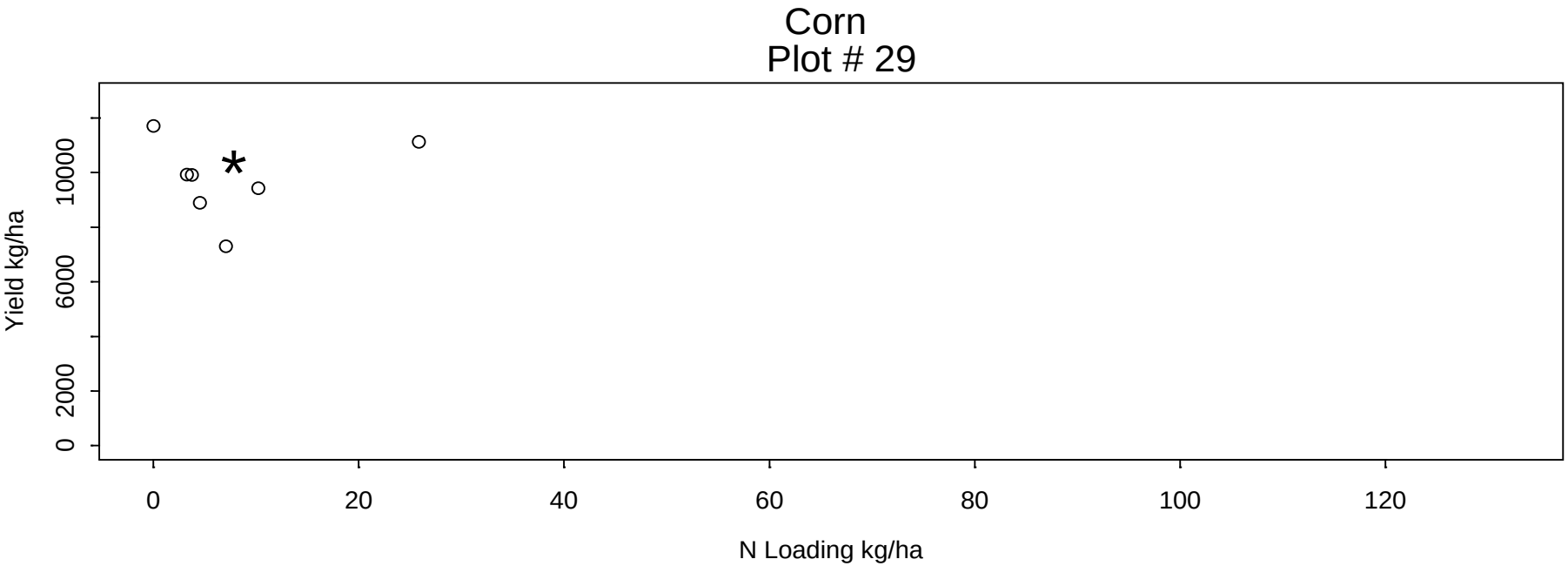

Soybean
Plot # 26
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

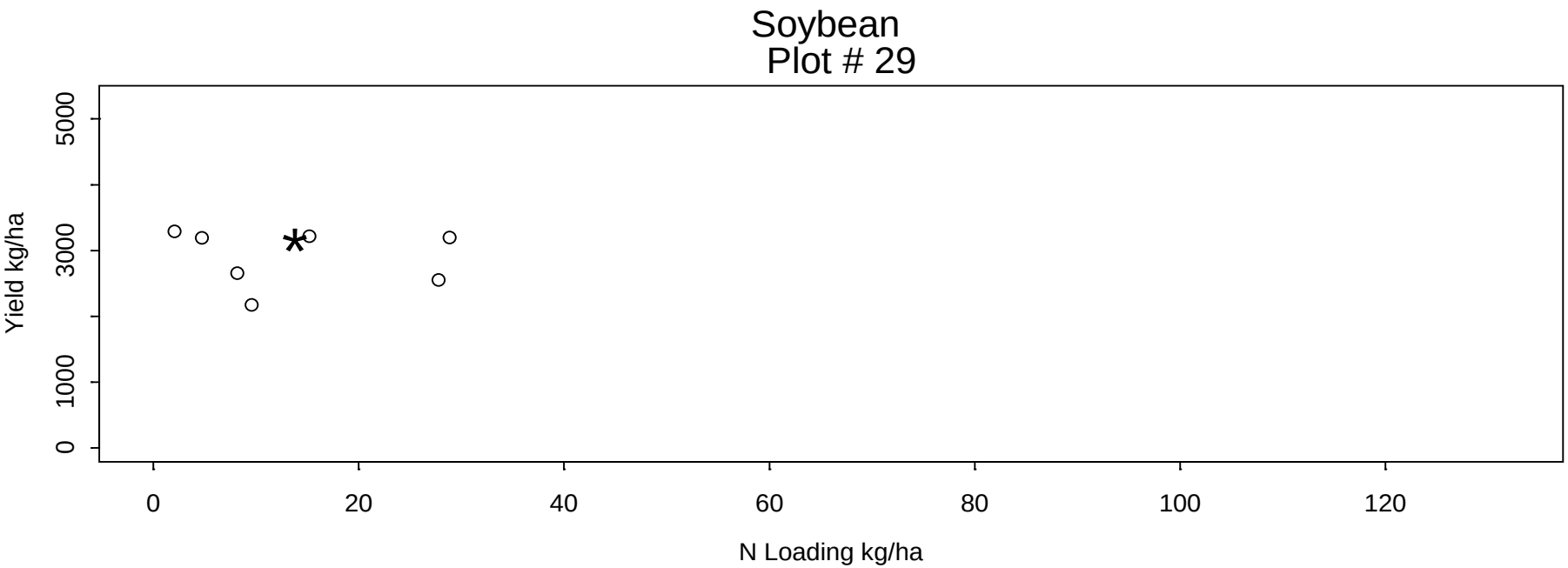

Corn
Plot # 27
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

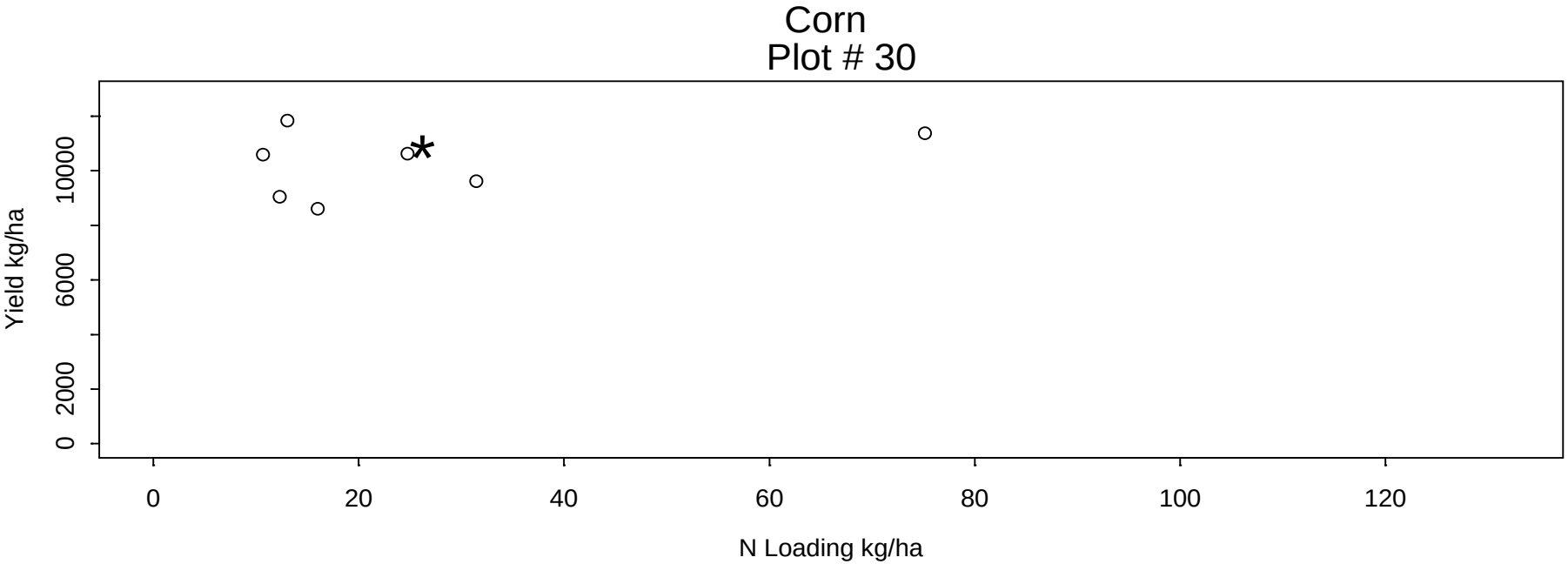

Soybean
Plot # 27
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

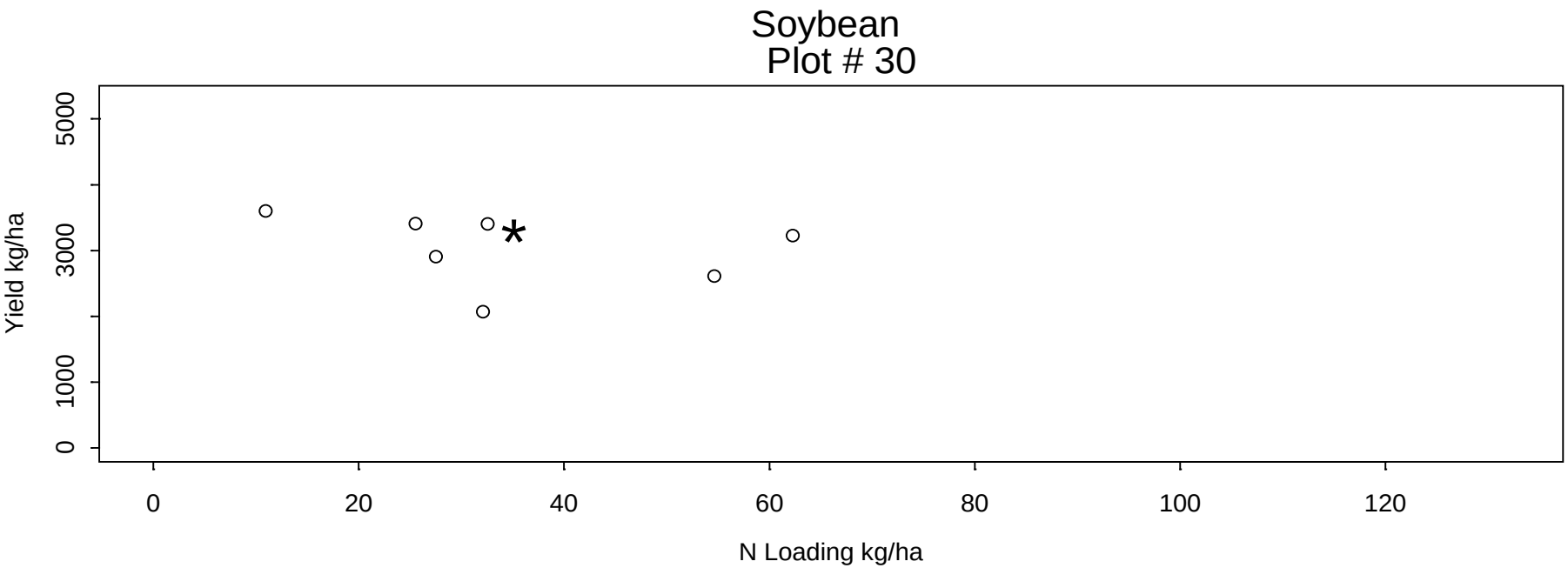

Corn
Plot # 28
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

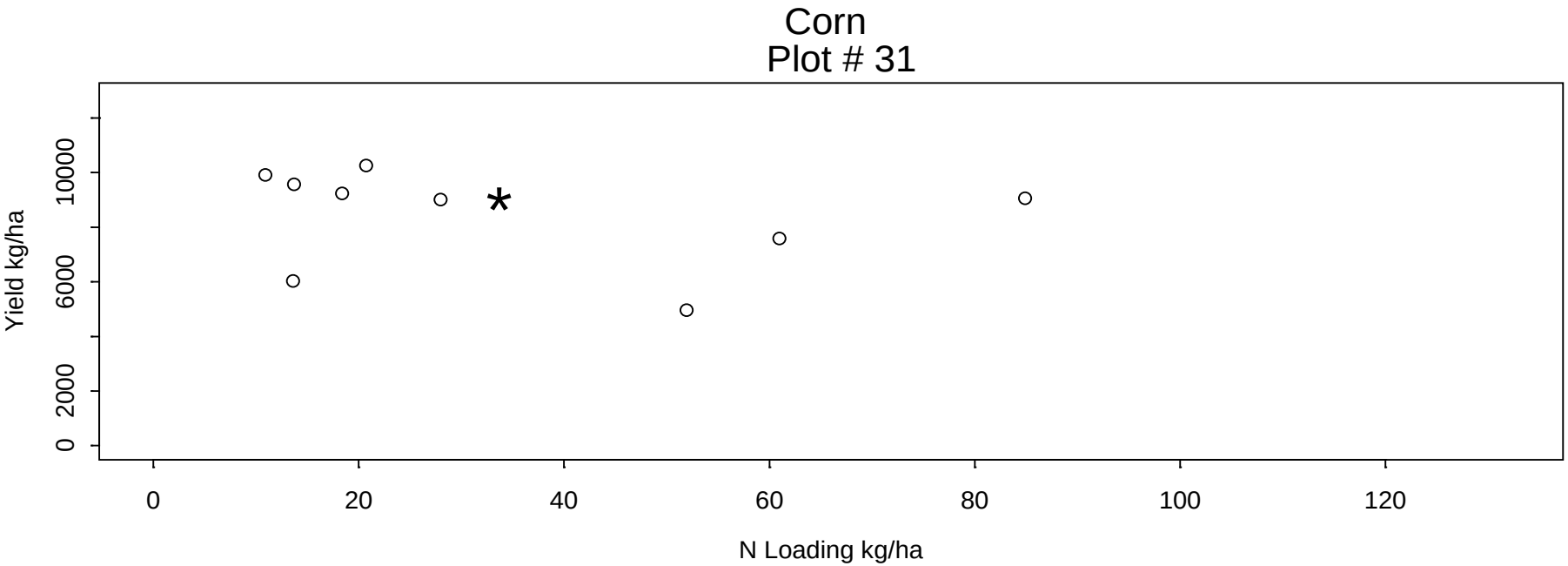

Soybean
Plot # 28
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

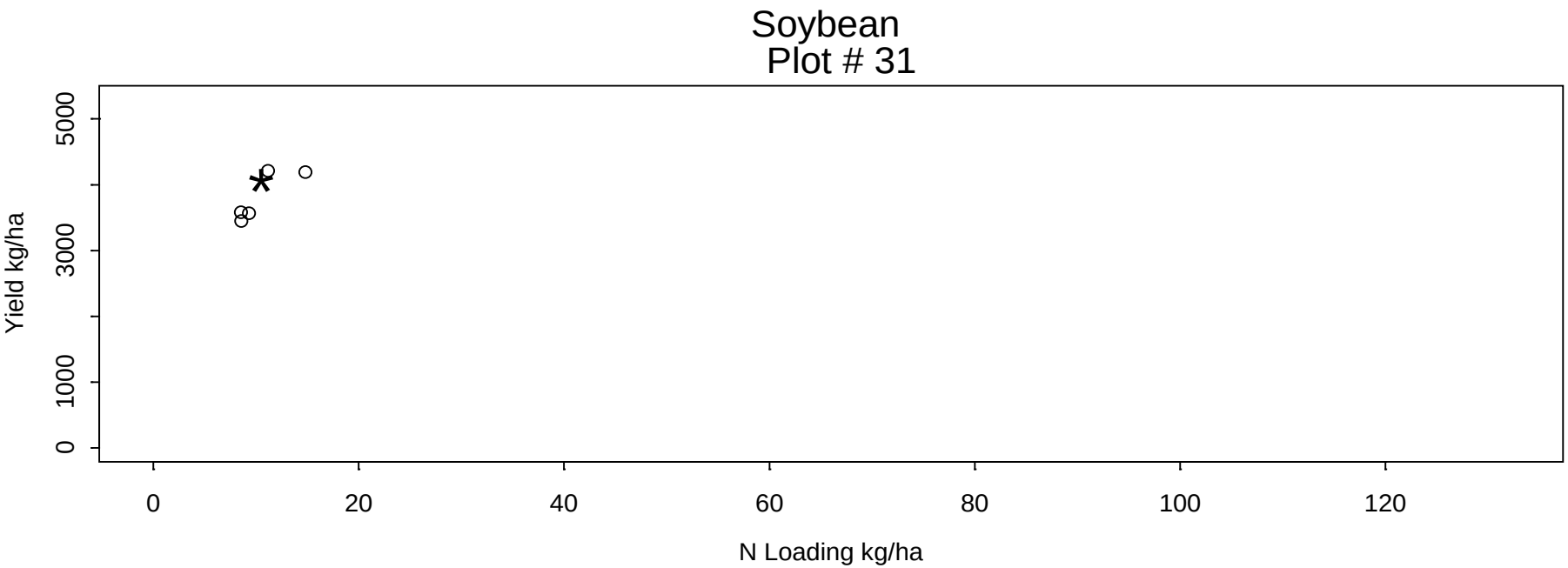

Corn
Plot # 29
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

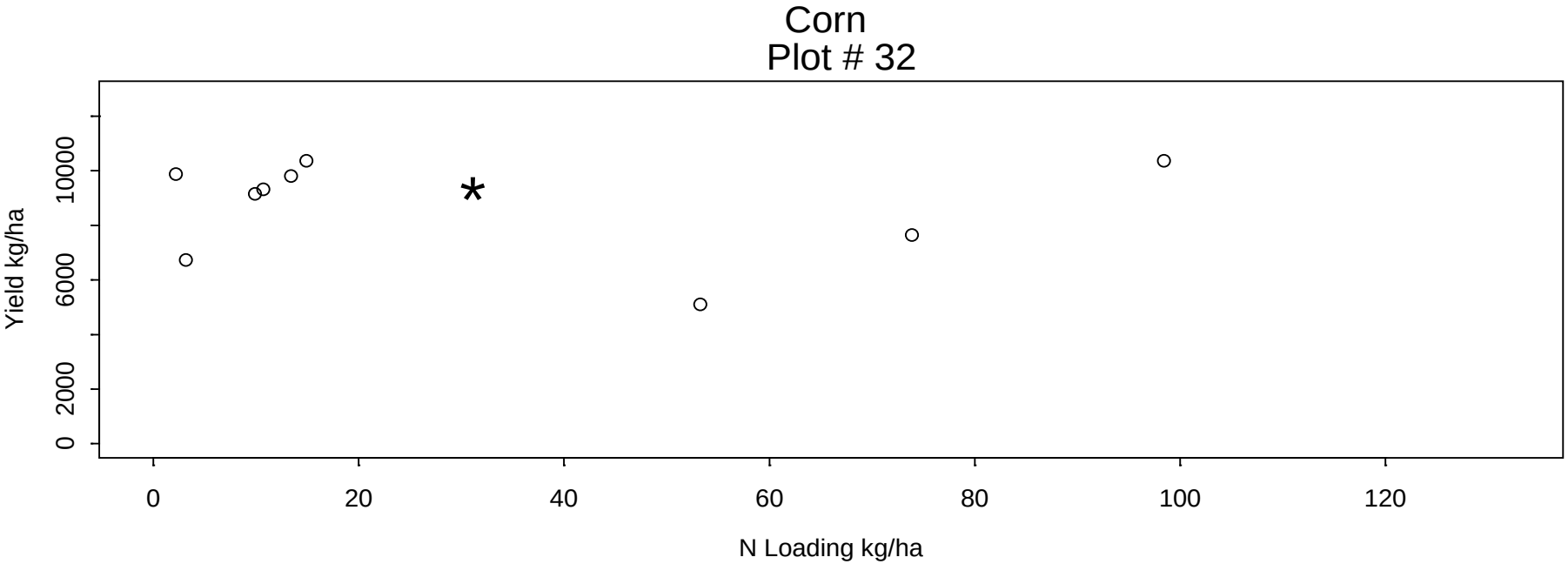

Soybean
Plot # 29
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

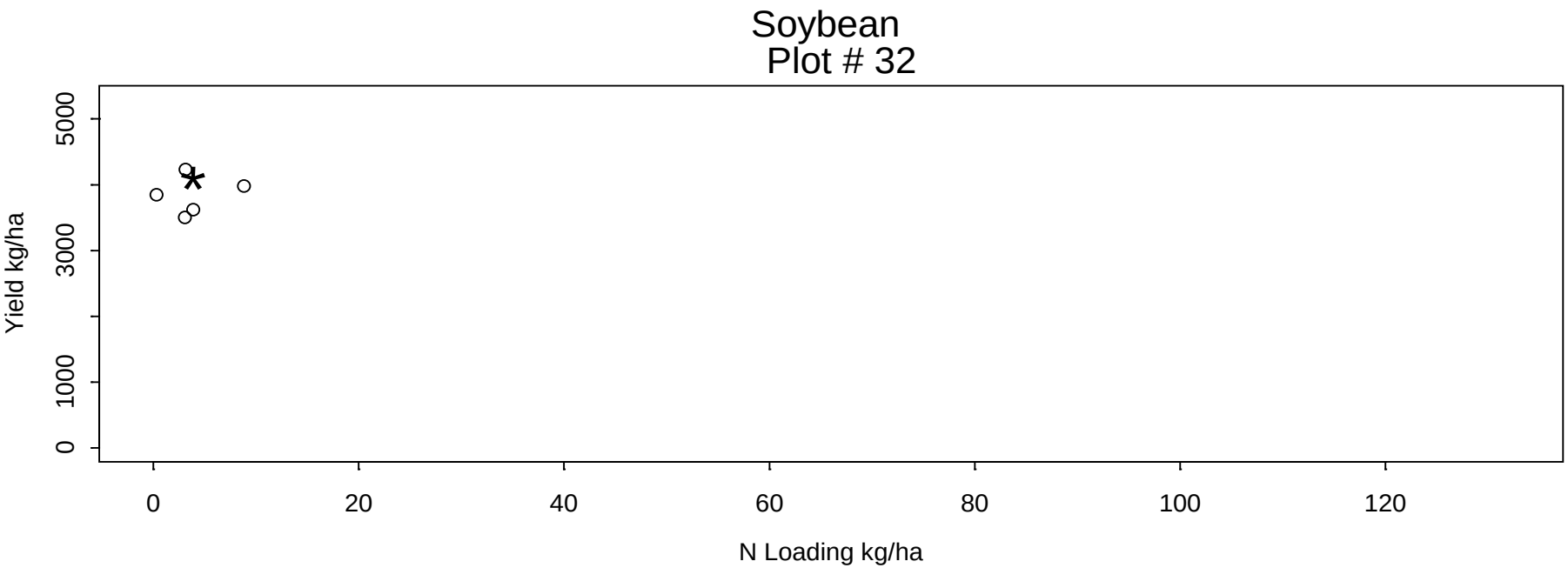

Corn
Plot # 30
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

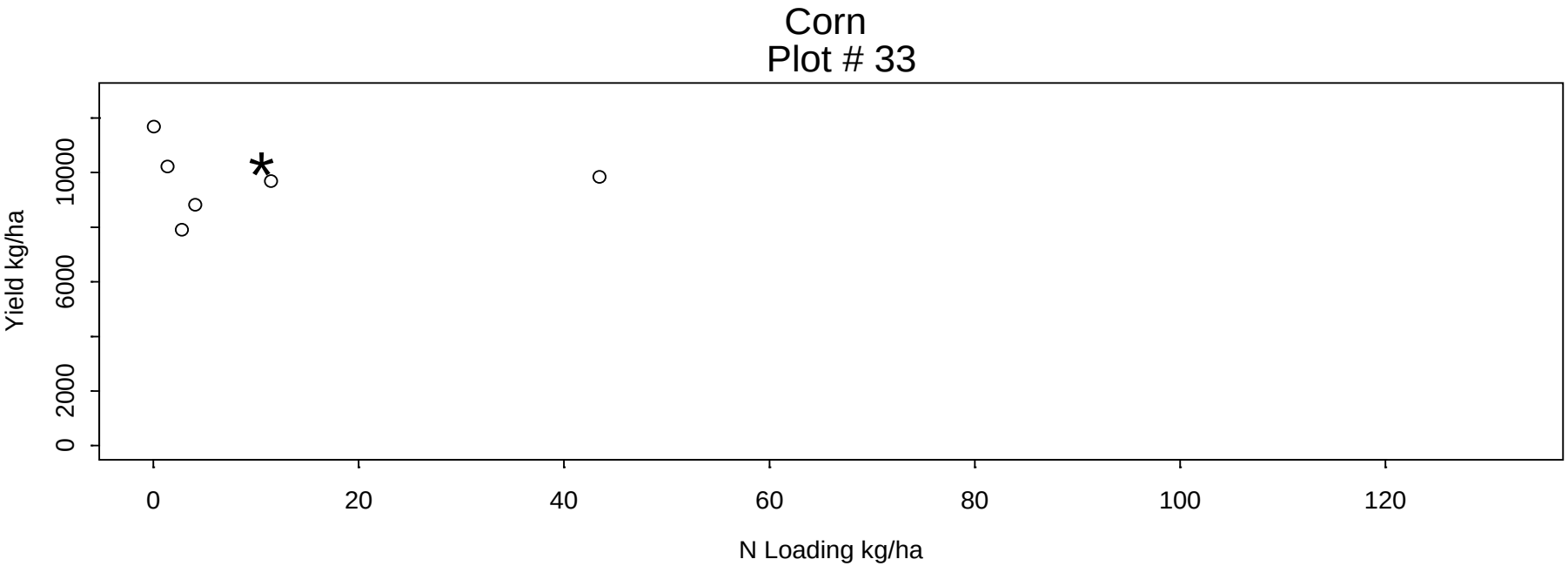

Soybean
Plot # 30
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

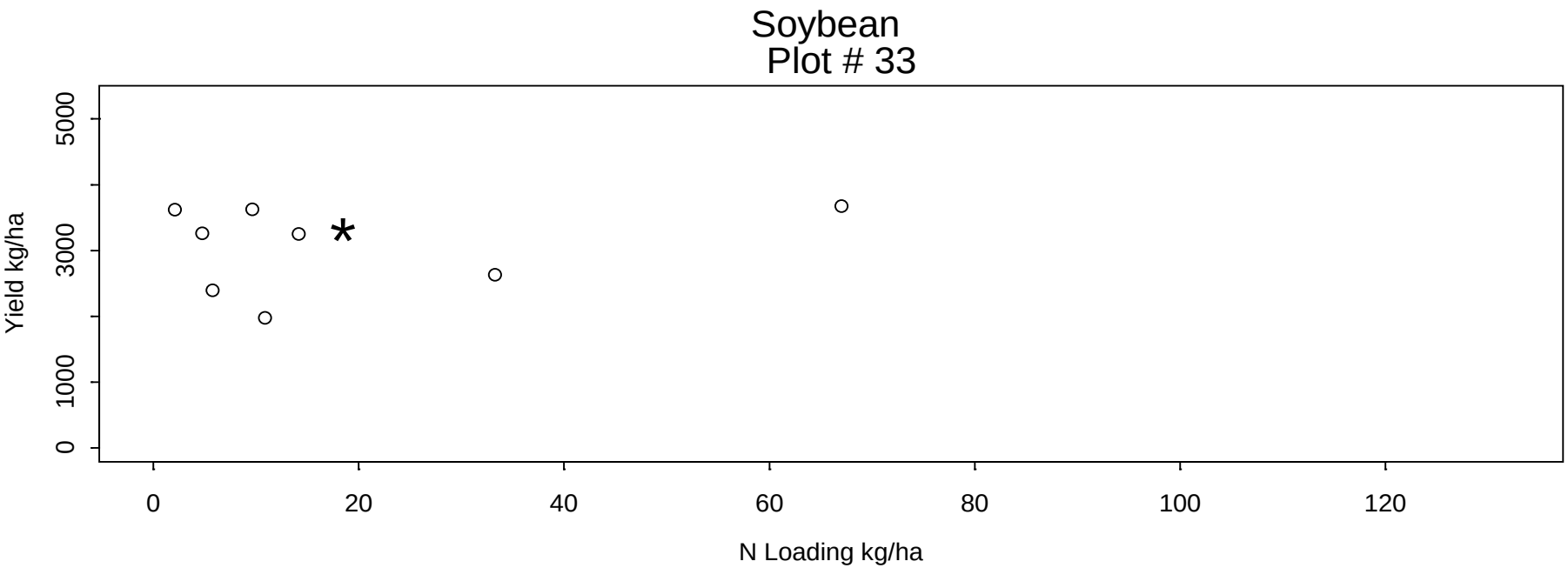

Corn
Plot # 31
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

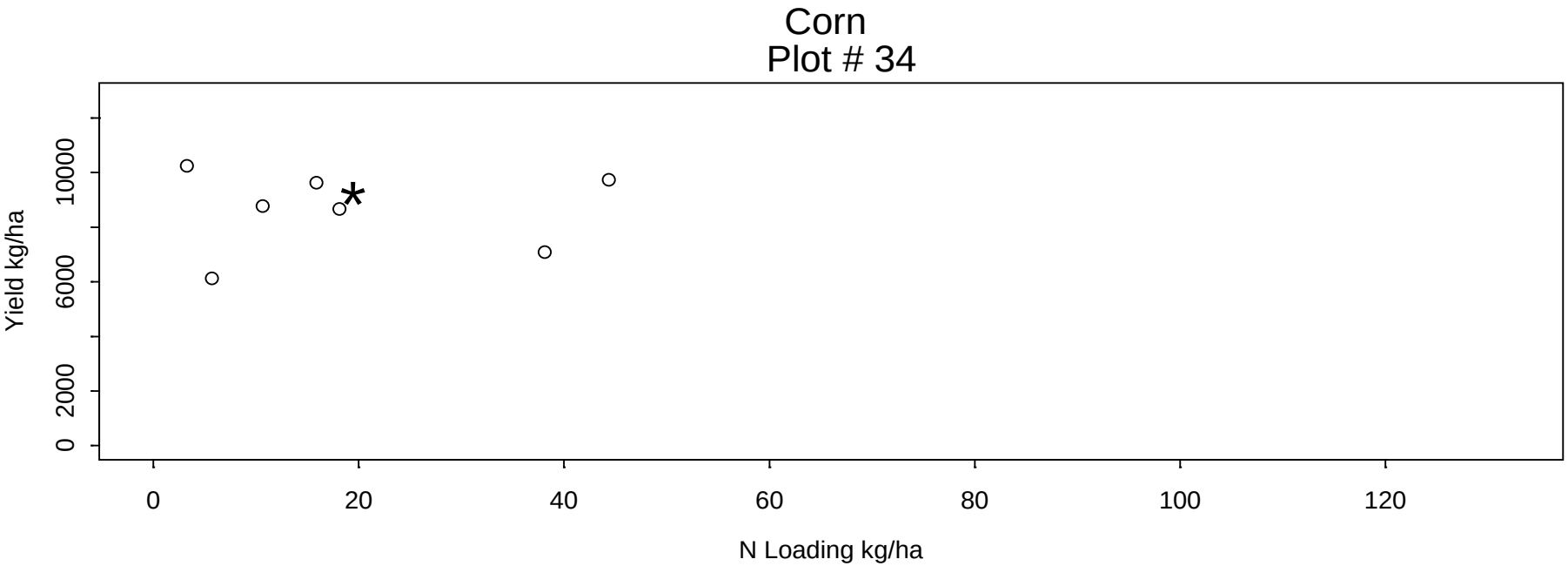

Soybean
Plot # 31
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

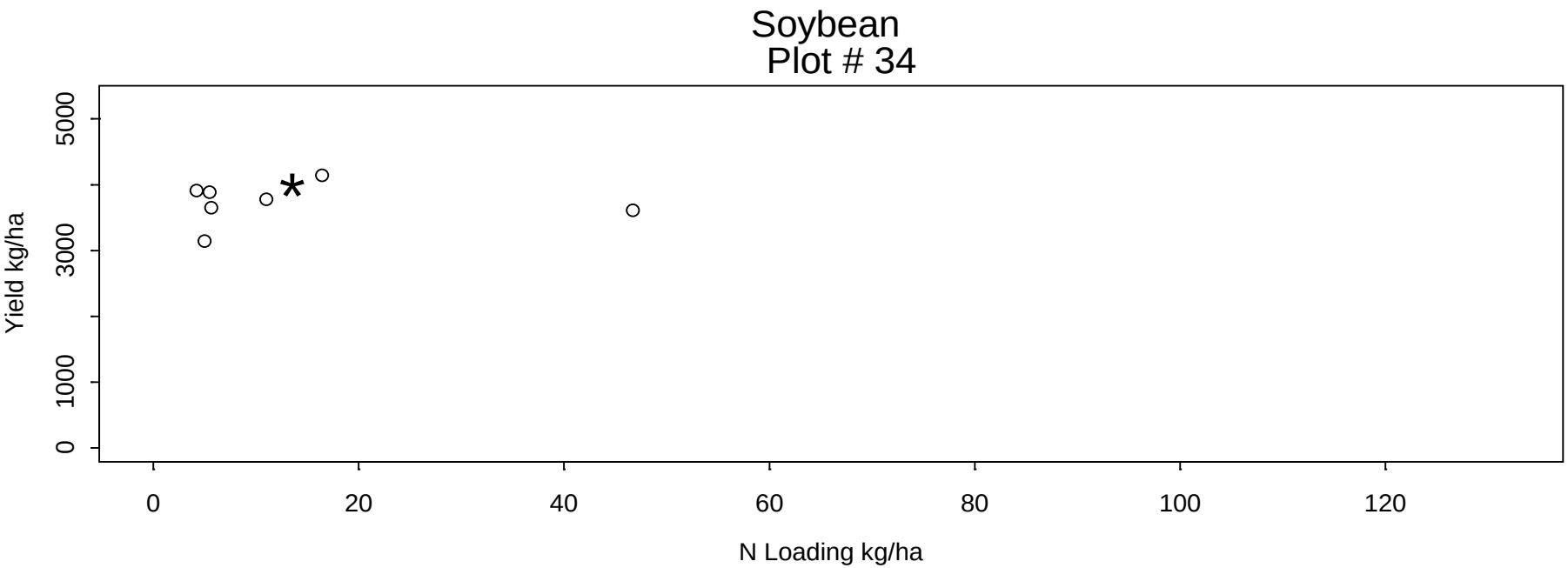

Corn
Plot # 32
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

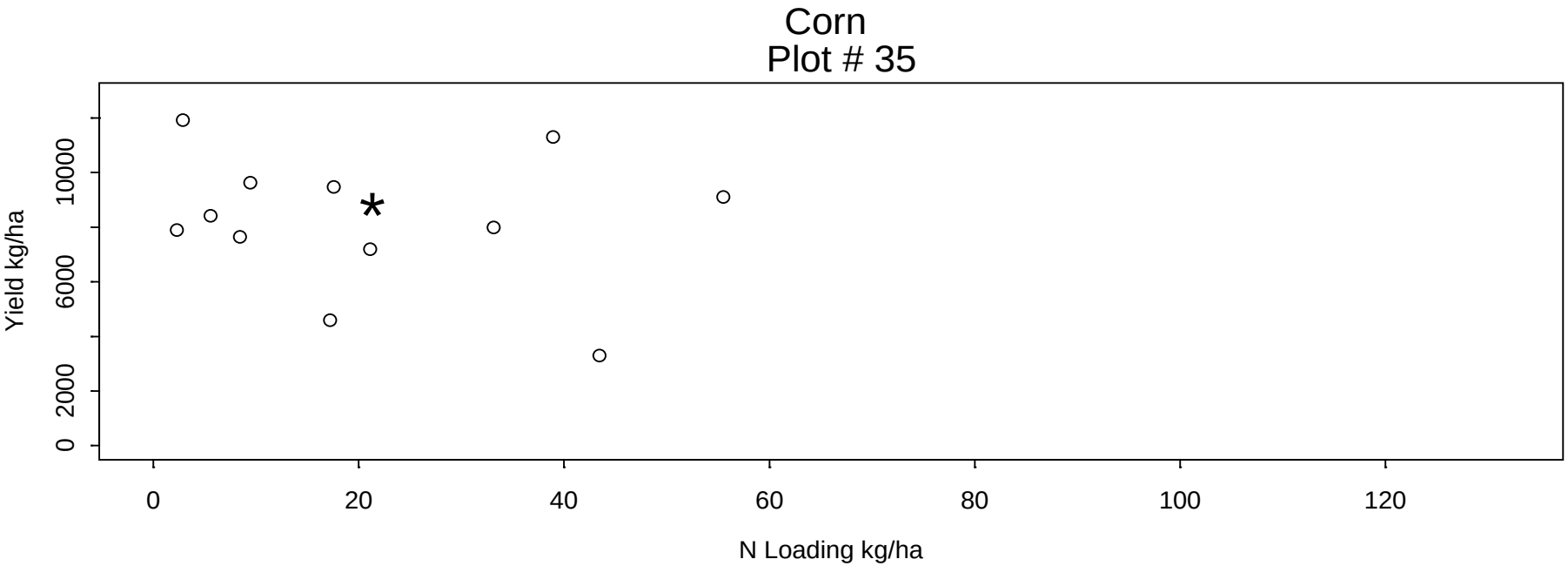

Soybean
Plot # 32
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

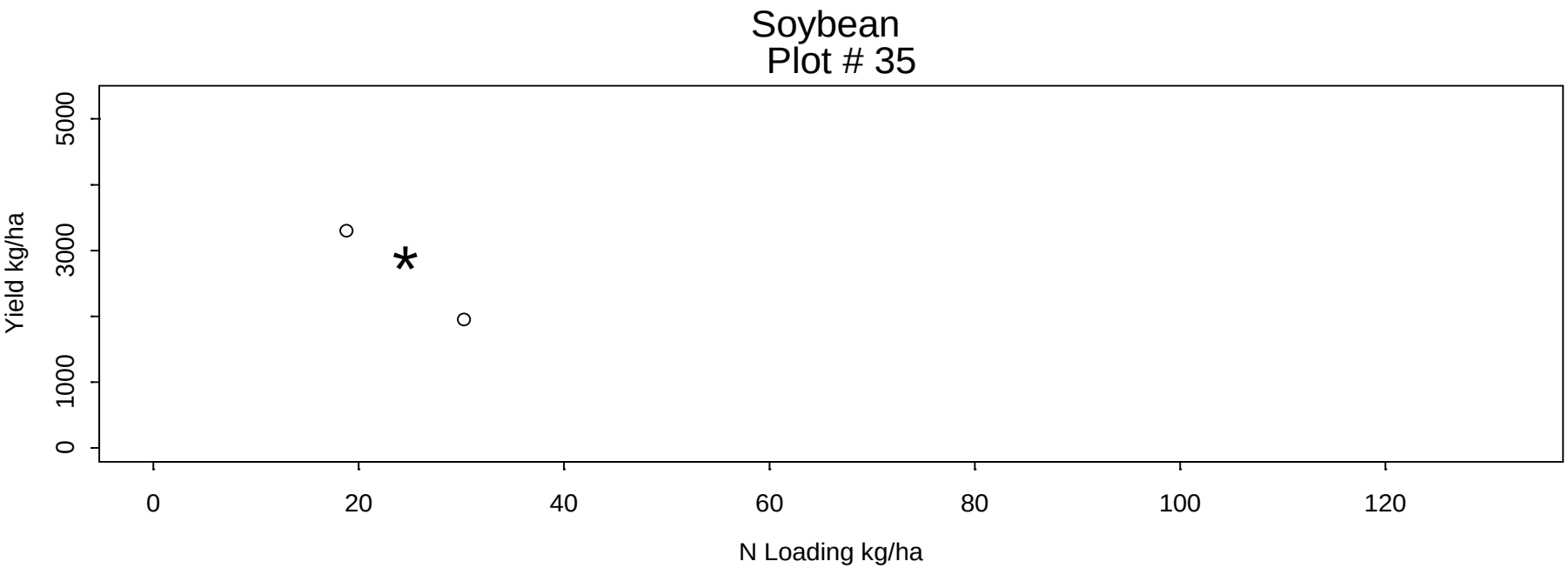

Corn
Plot # 33
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

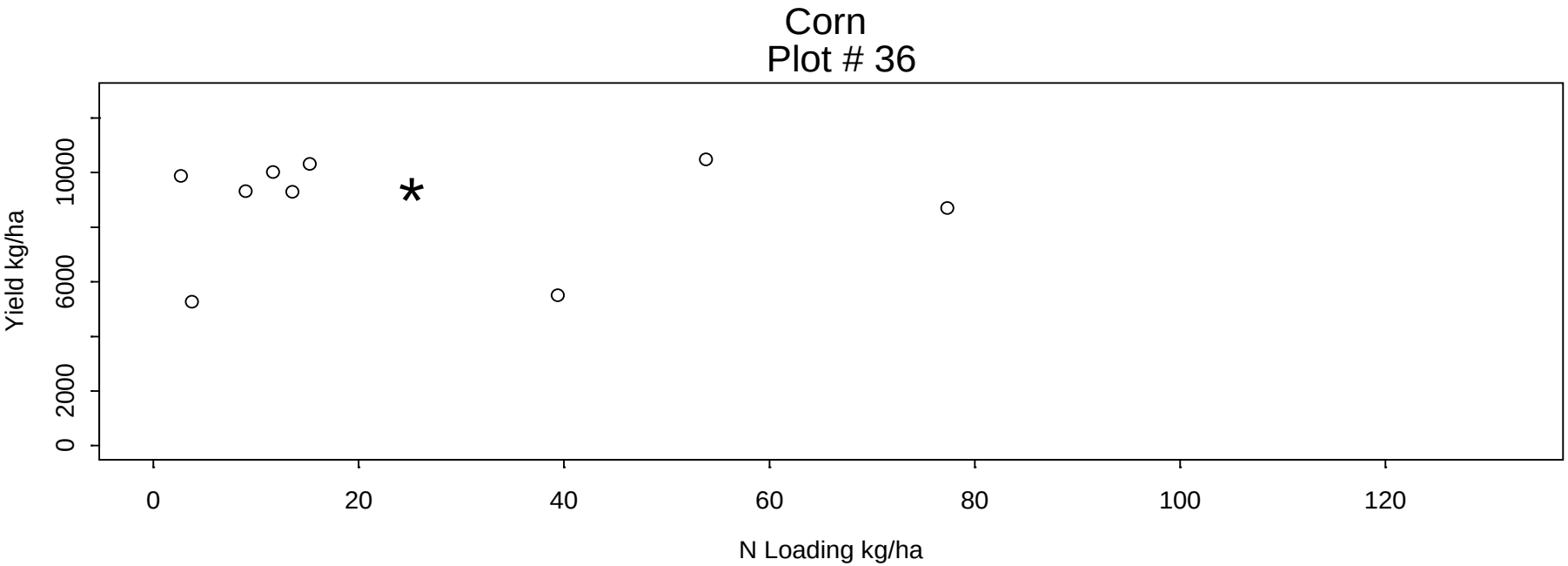

Soybean
Plot # 33
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

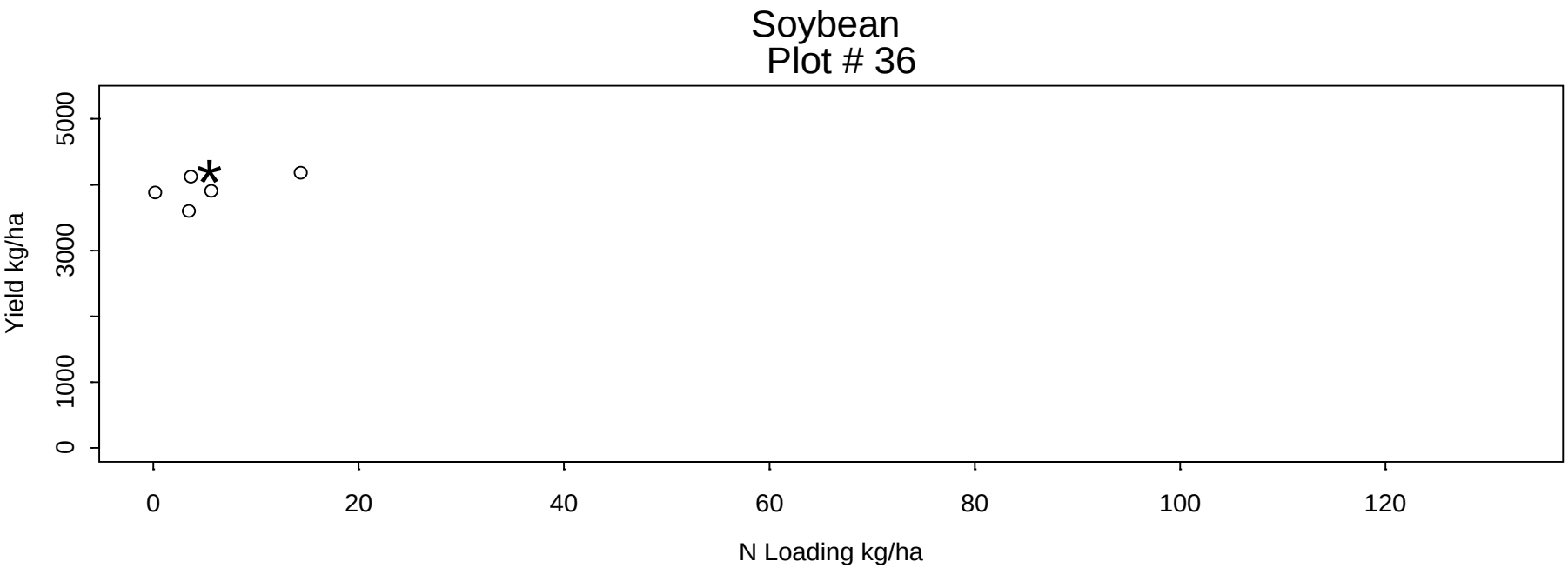

Corn
Plot # 34
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha


Soybean
Plot # 34
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

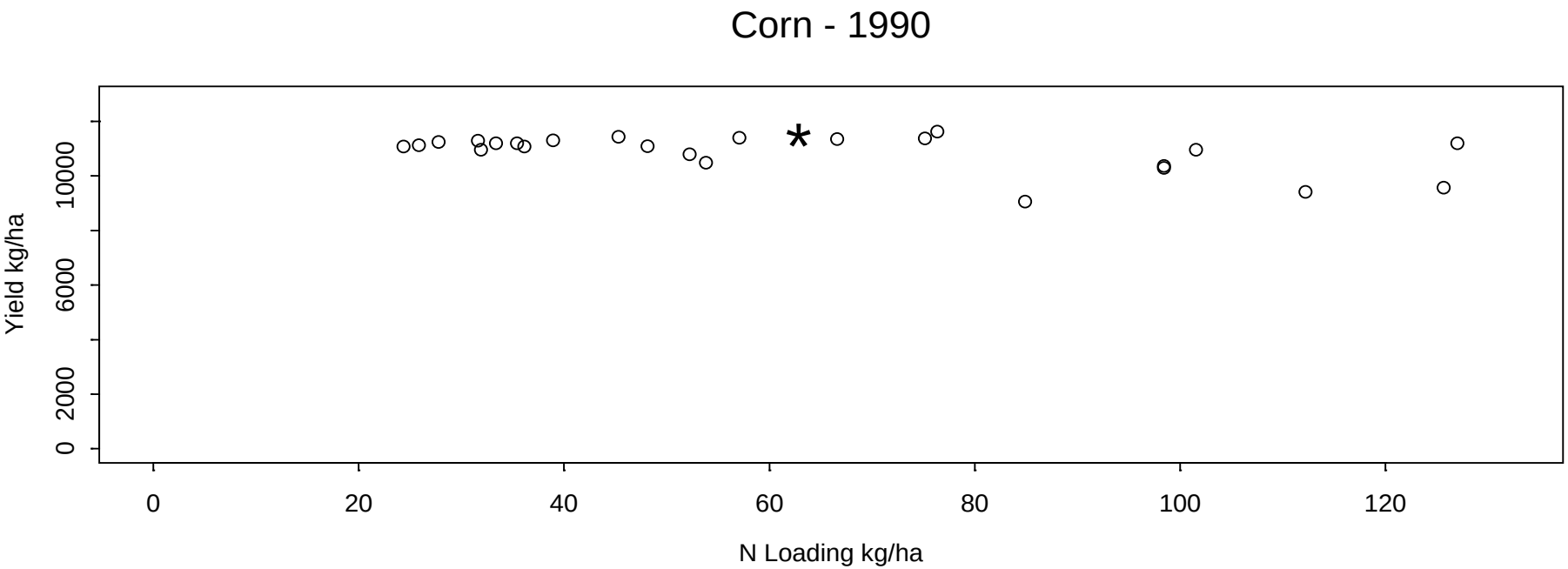

Corn
Plot # 35
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

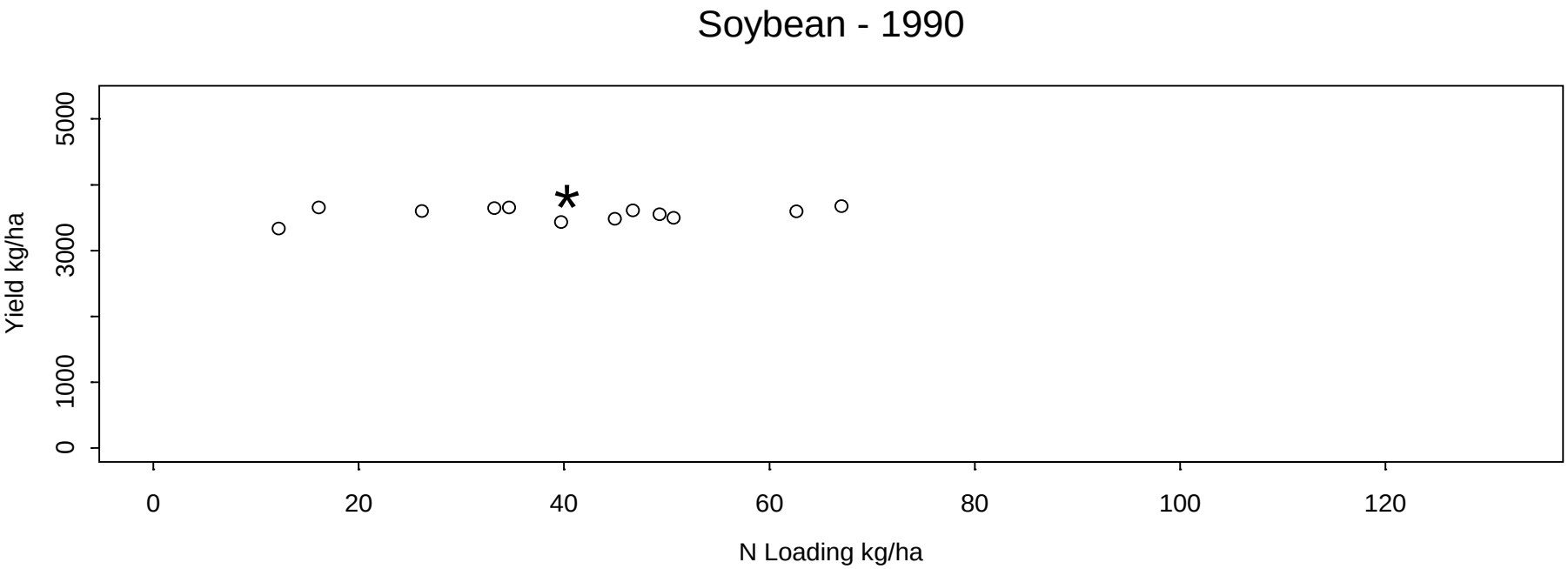

Soybean
Plot # 35
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

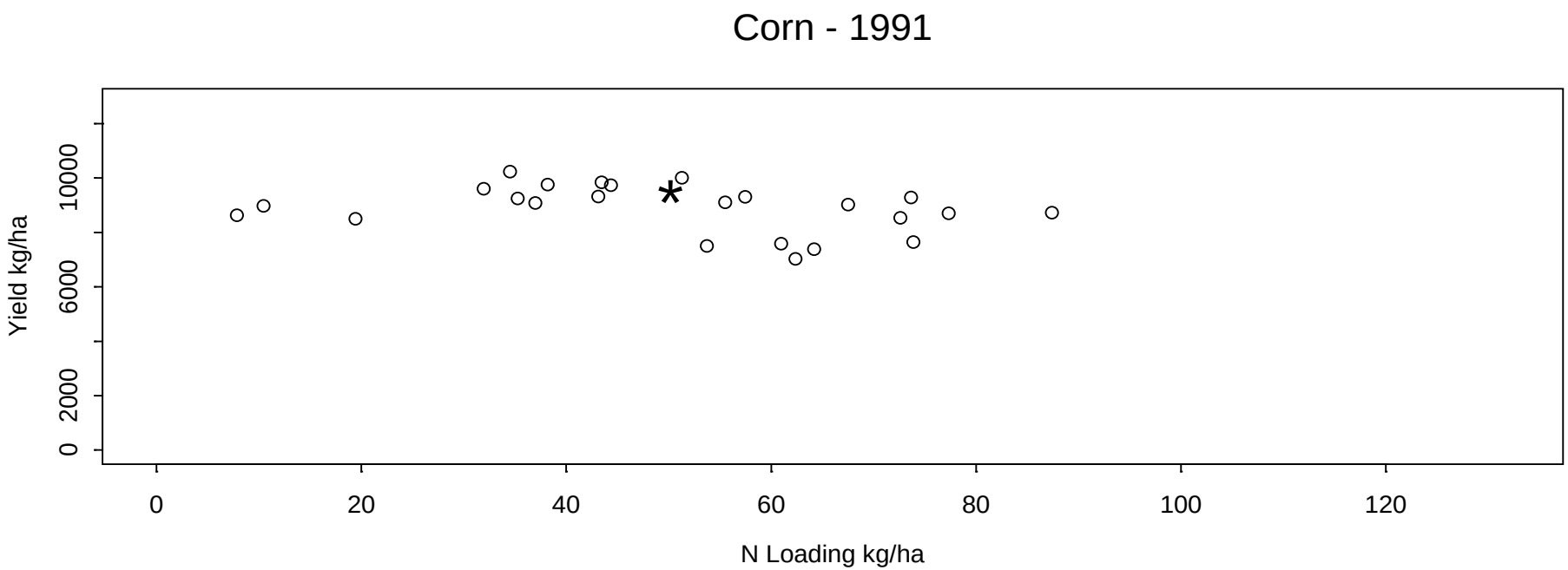

Corn
Plot # 36
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

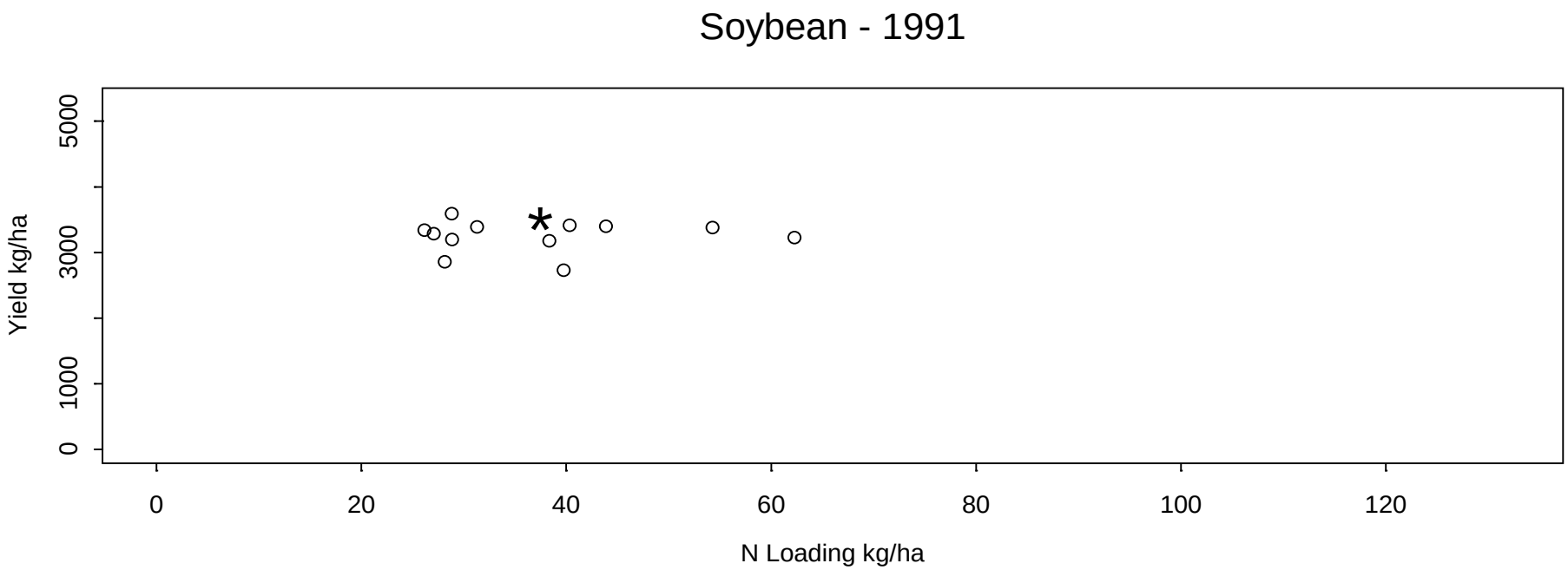

Soybean
Plot # 36
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

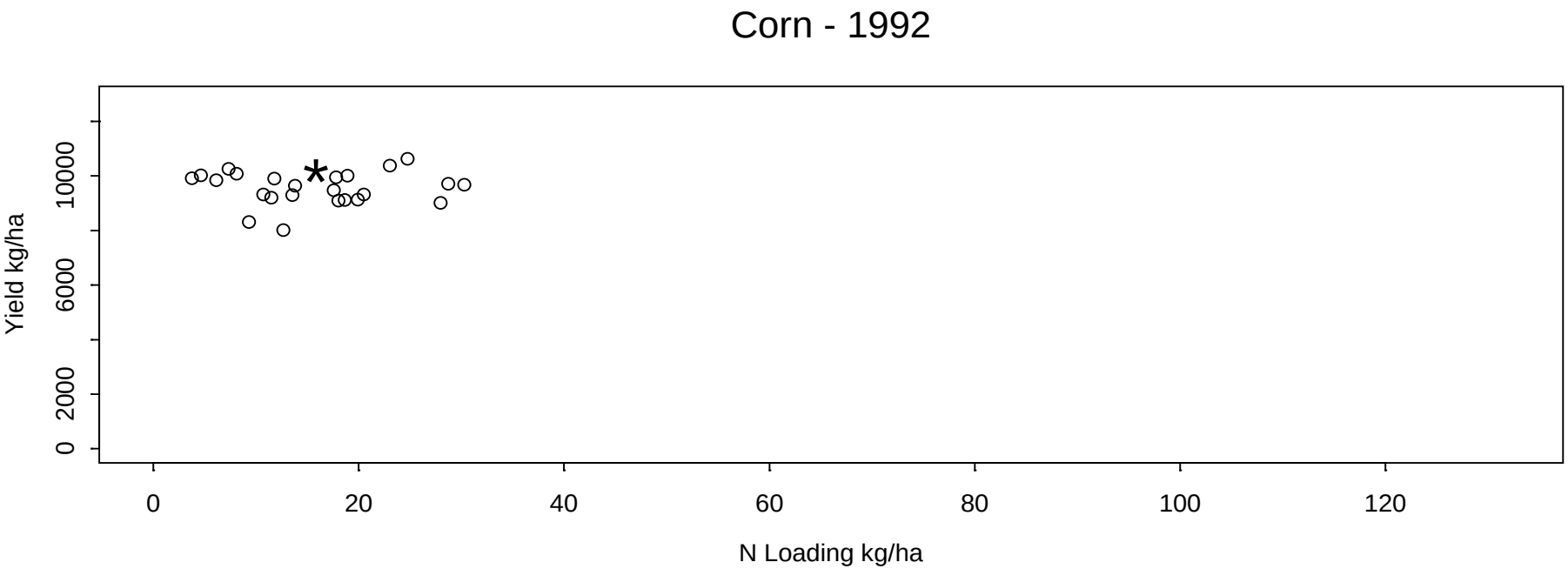
Year Effects

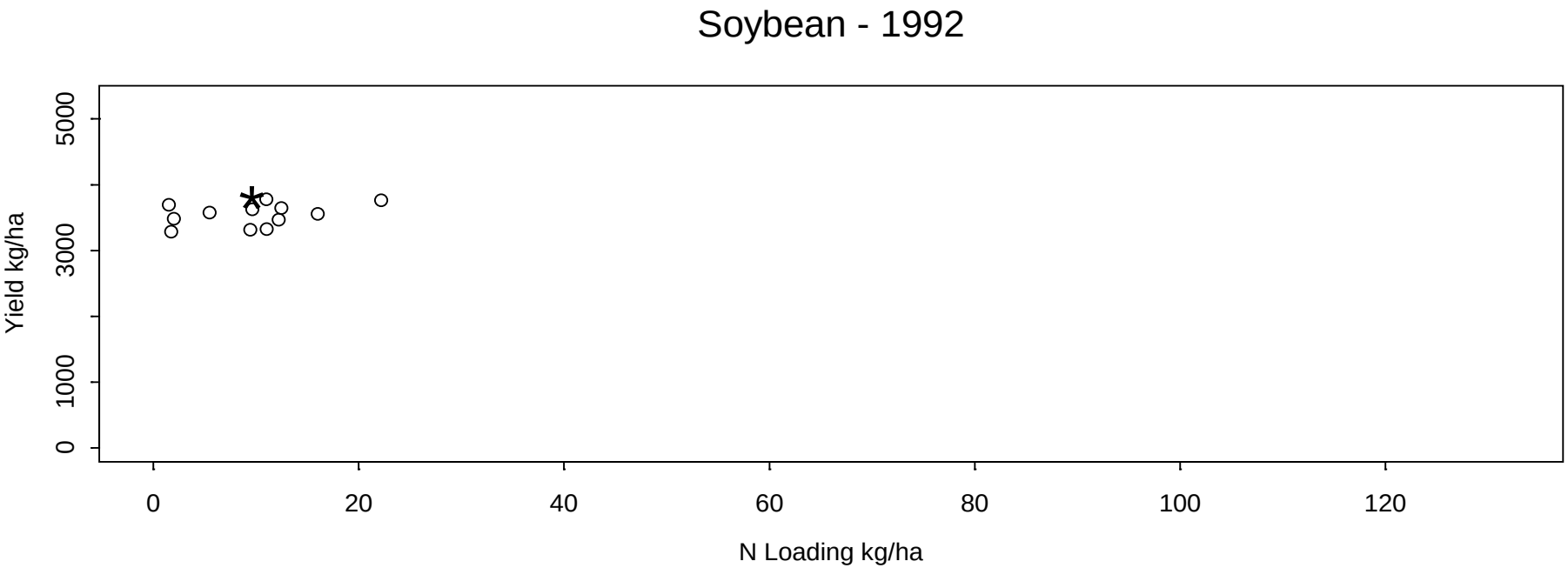

Corn - 1990
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

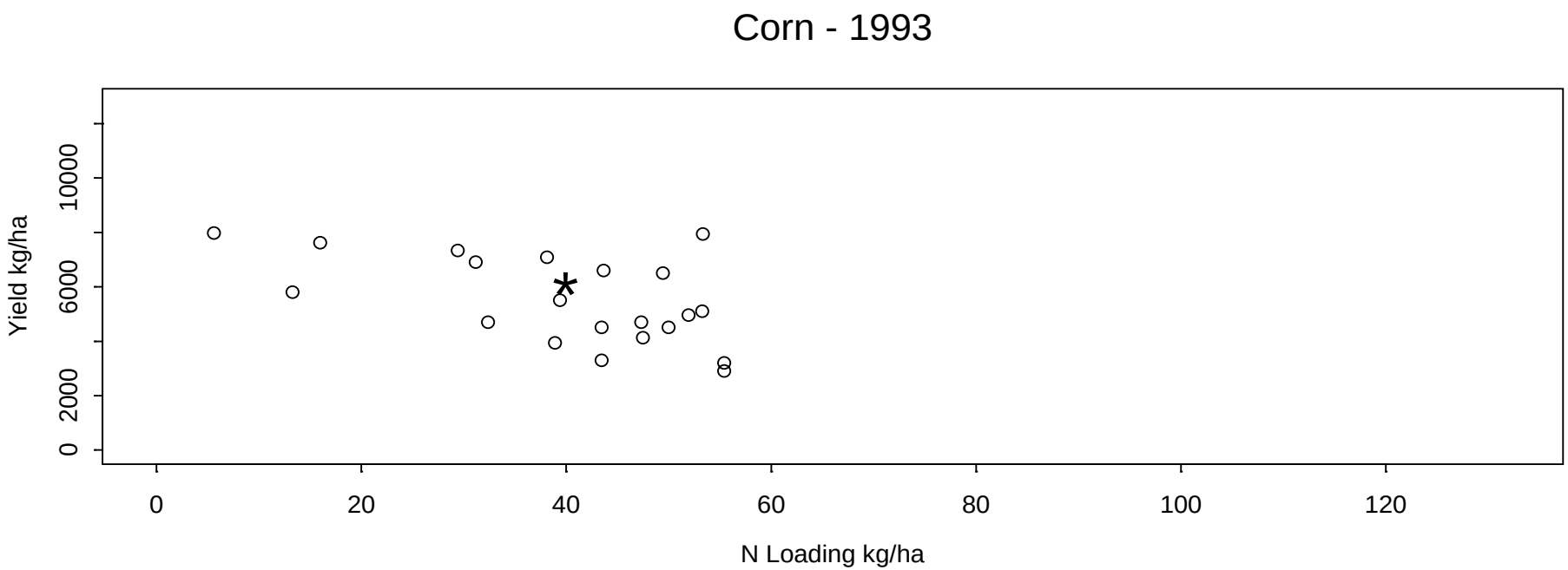

Soybean - 1990
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

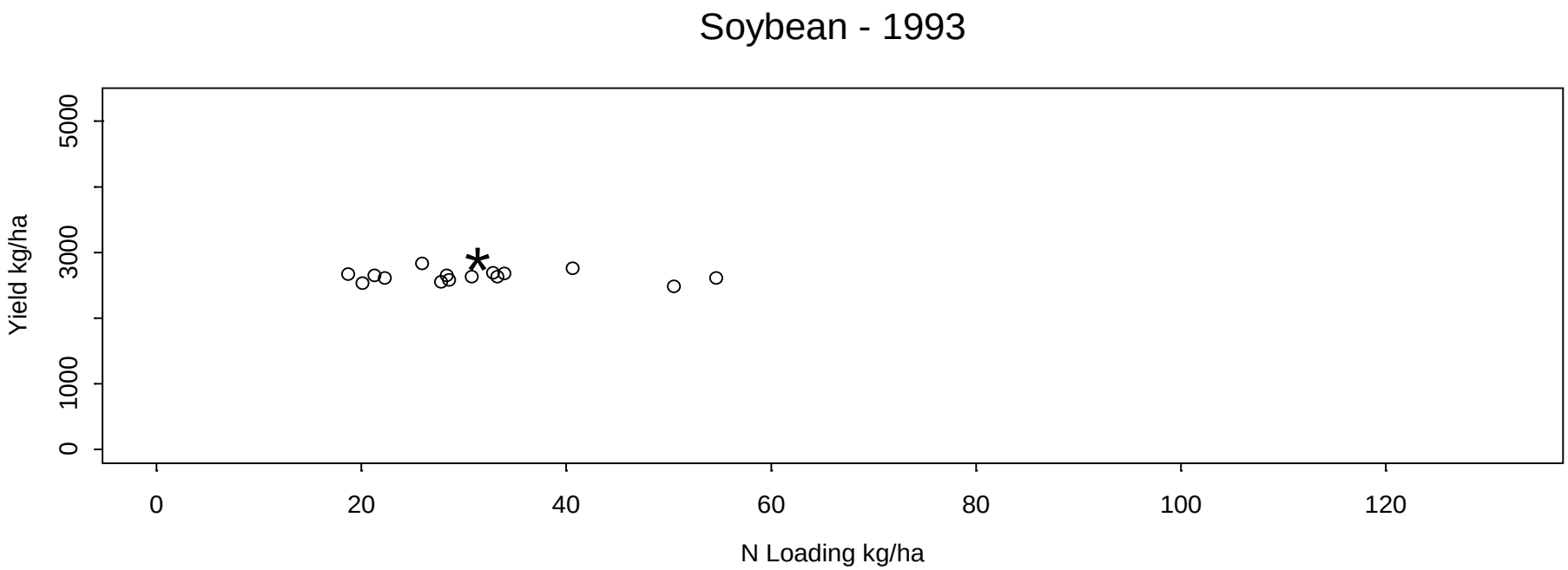

Corn - 1991
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

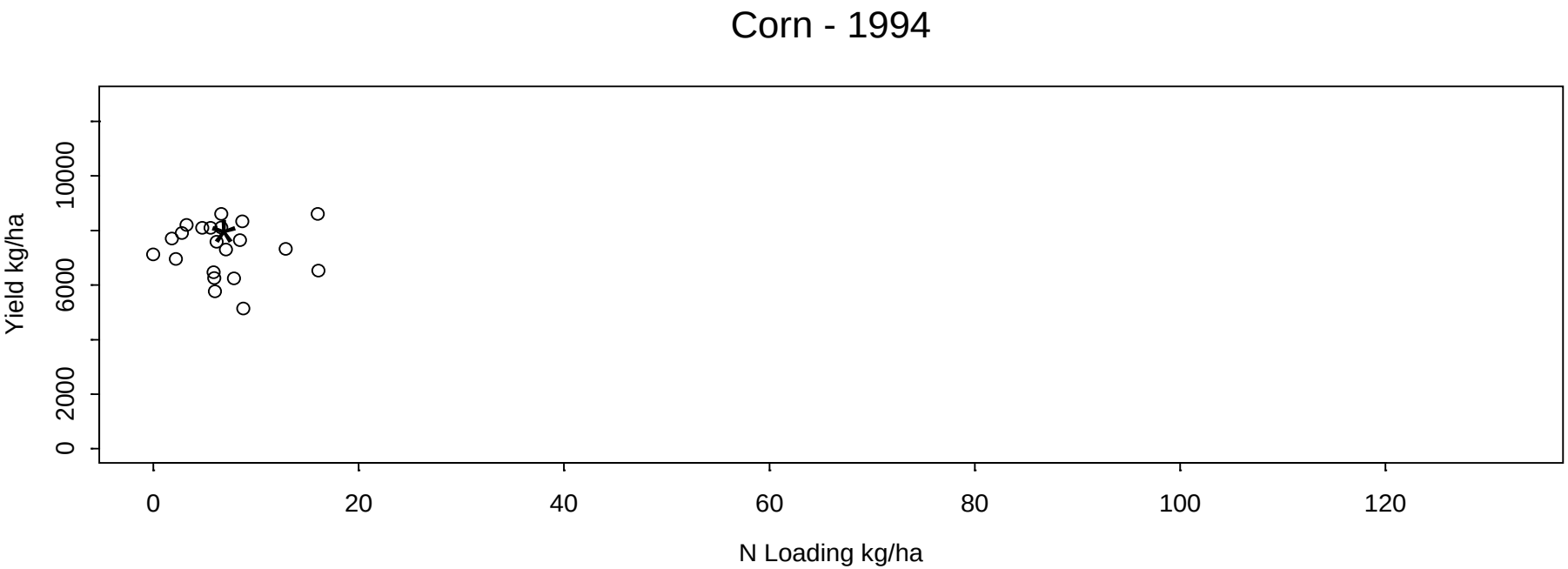

Soybean - 1991
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

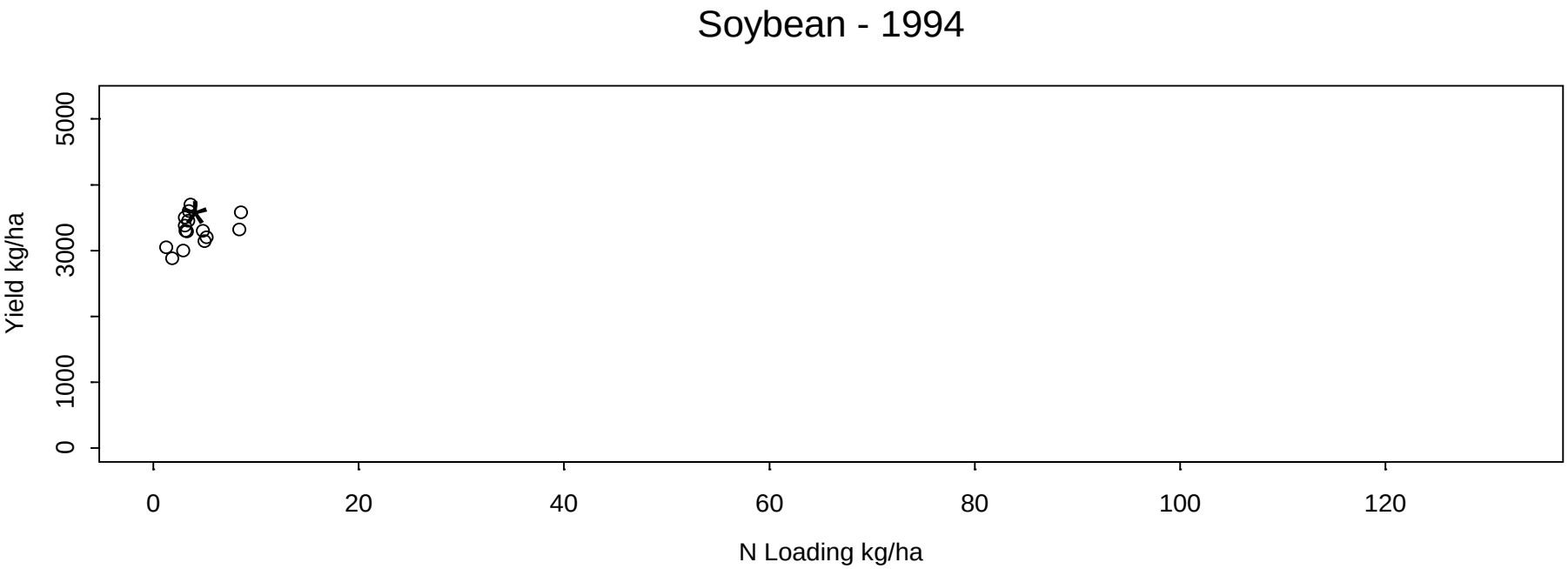

Corn - 1992
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

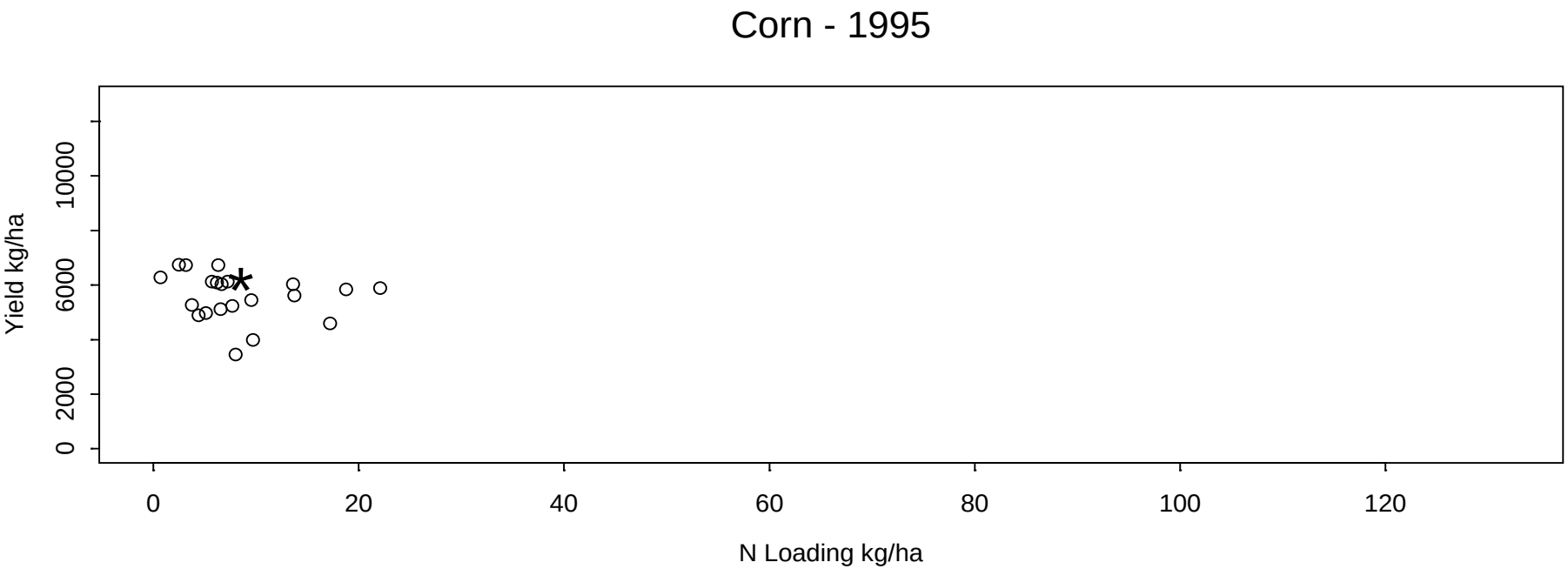

Soybean - 1992
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

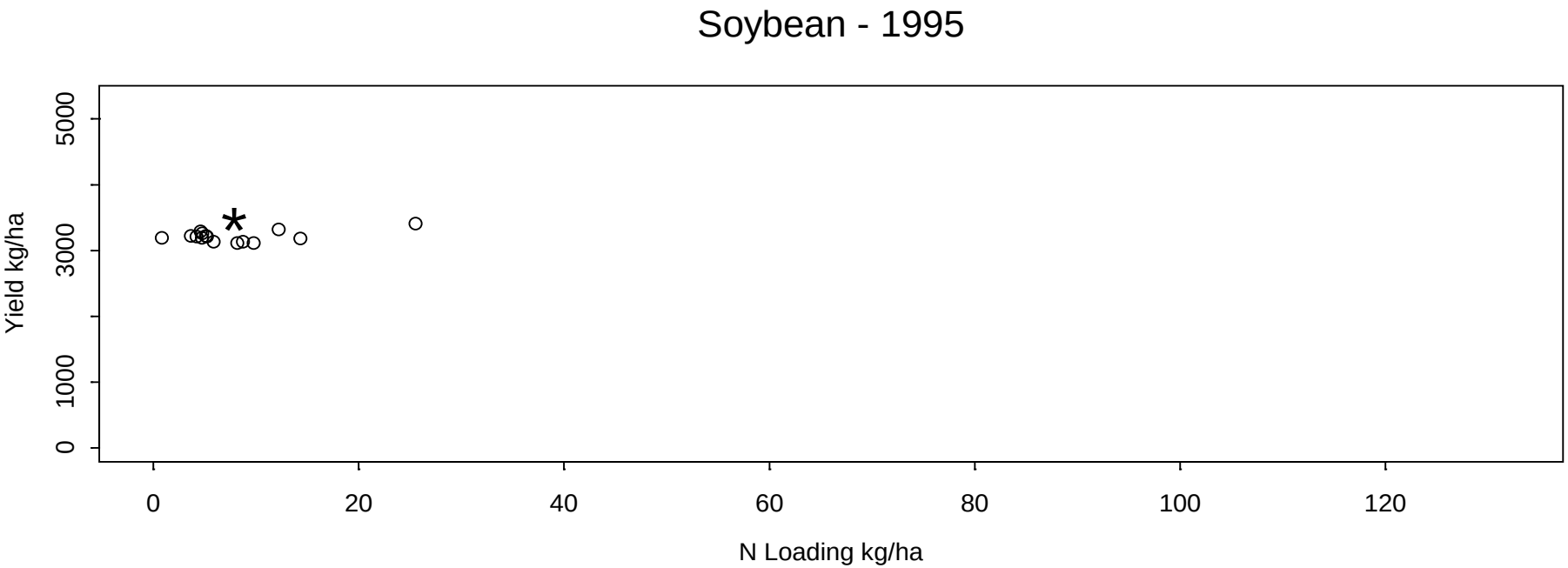

Corn - 1993
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

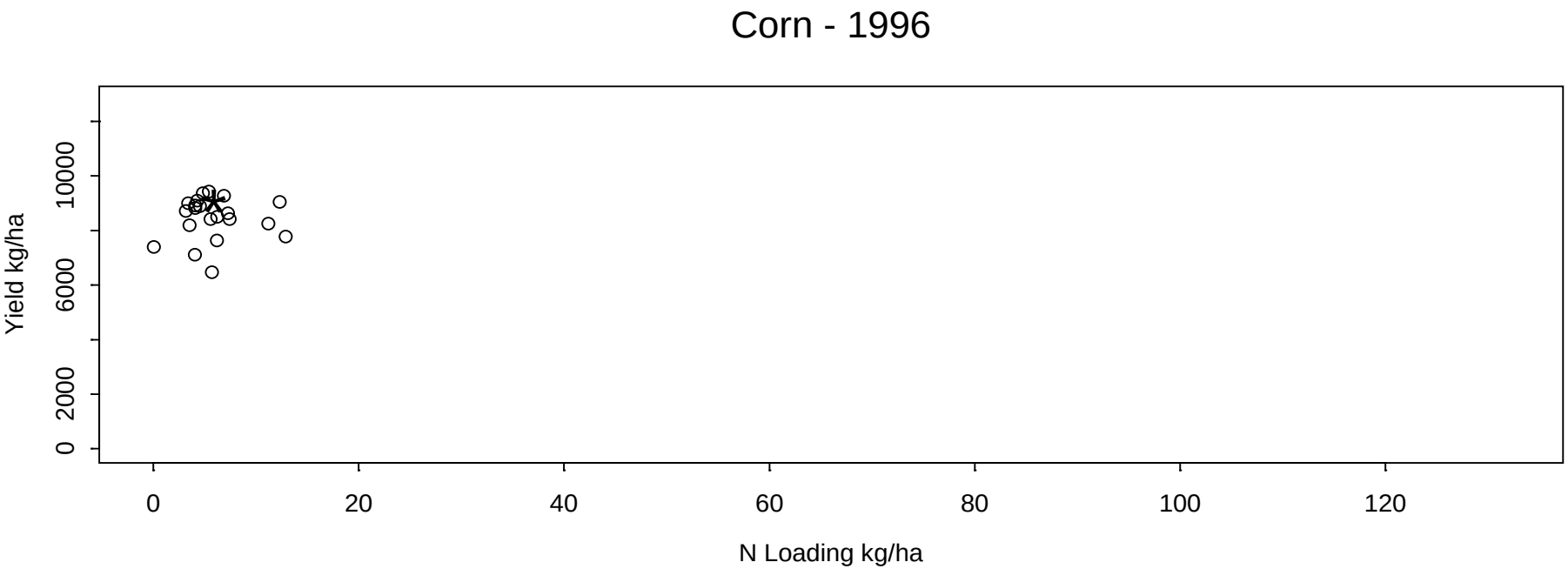

Soybean - 1993
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

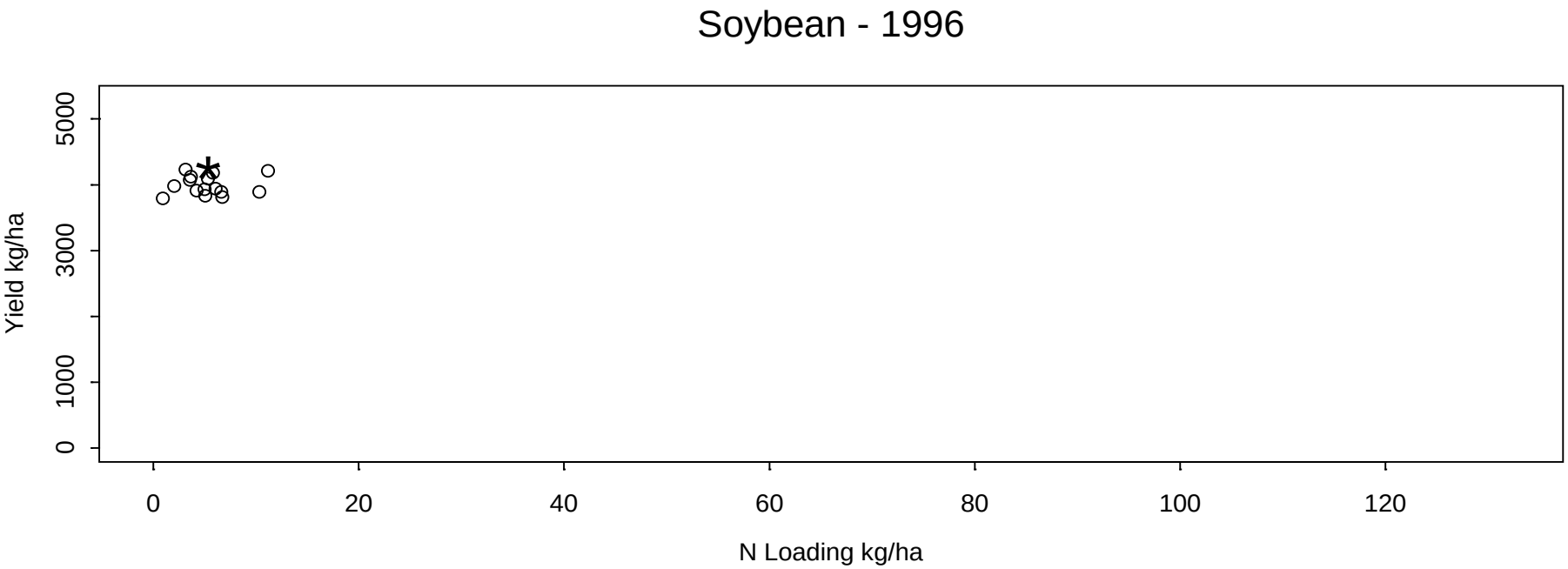

Corn - 1994
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

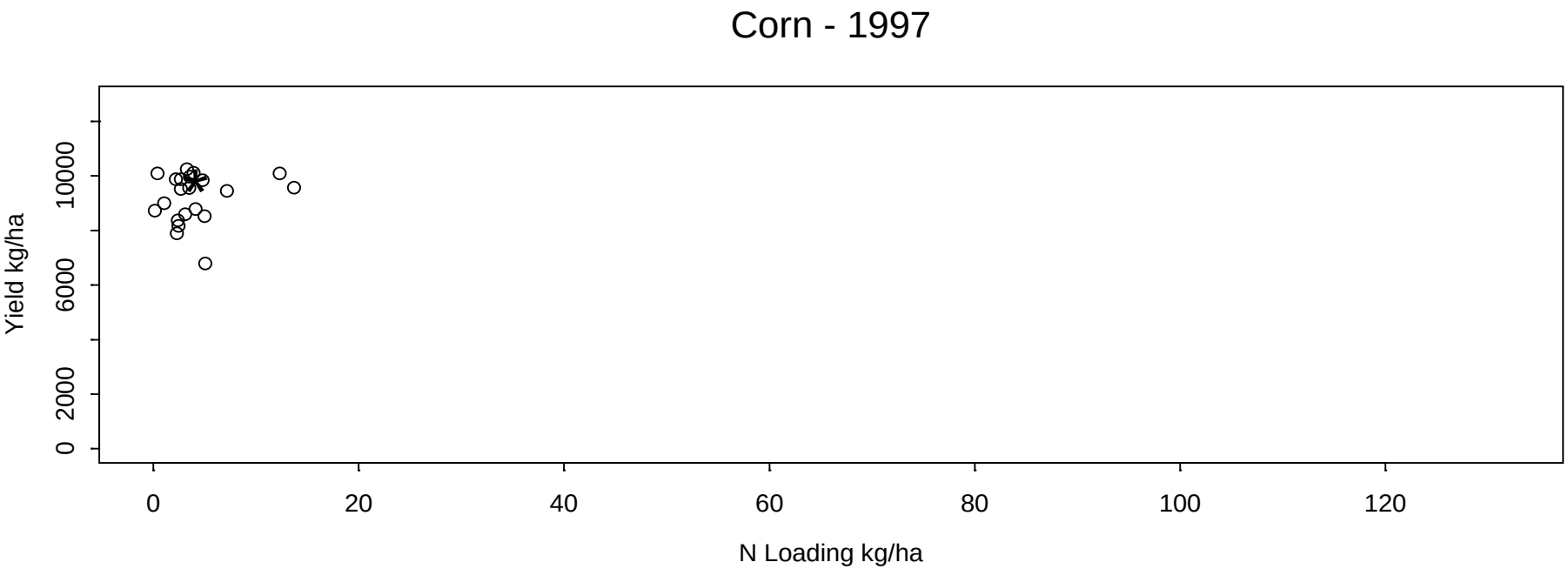

Soybean - 1994
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

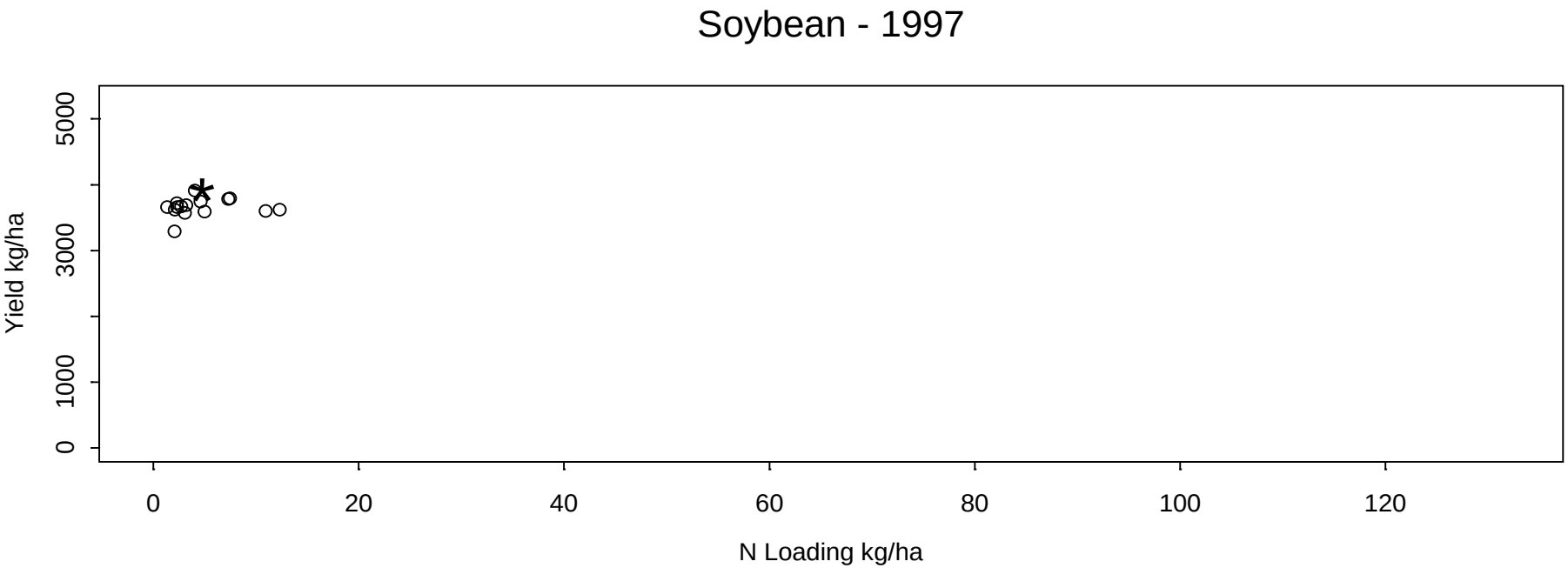

Corn - 1995
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

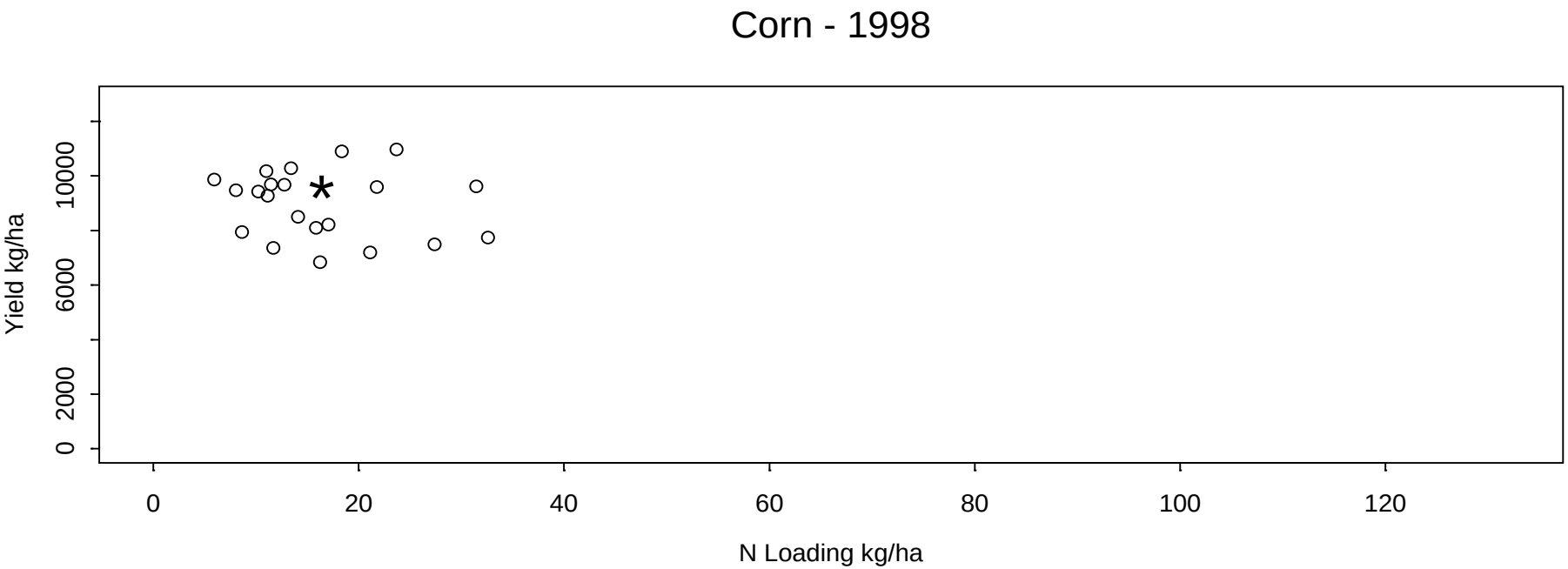

Soybean - 1995
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

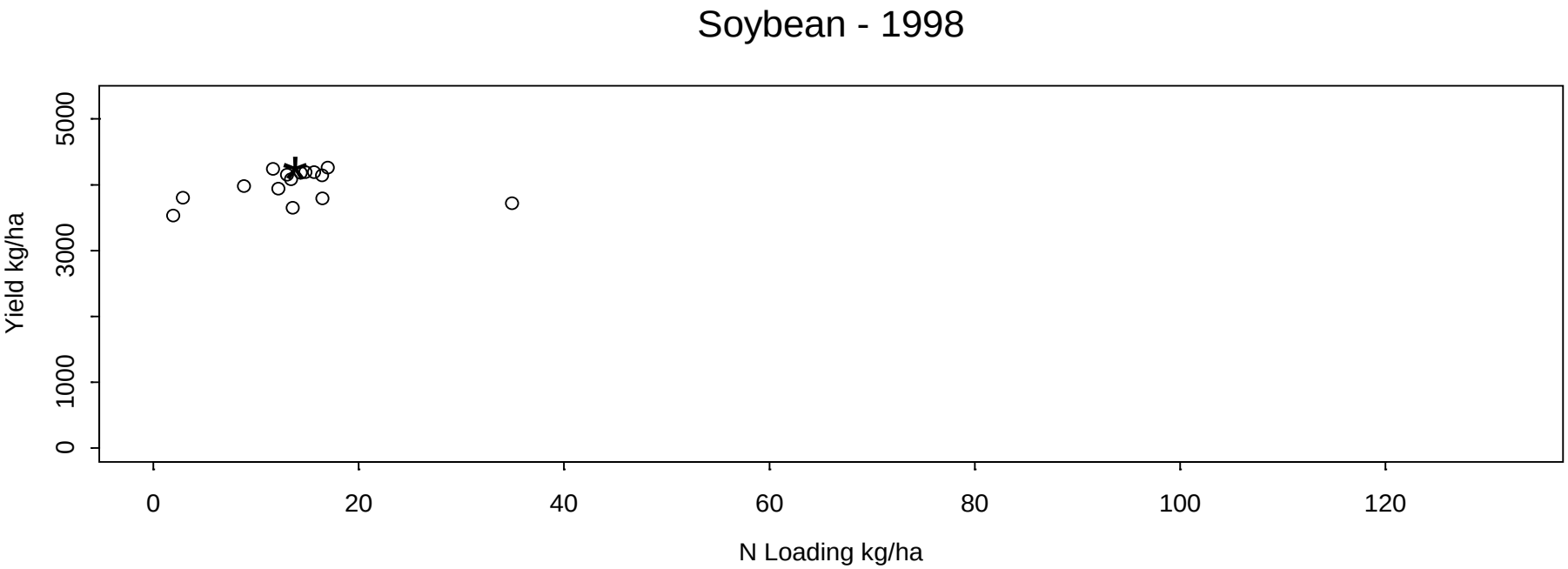

Corn - 1996
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

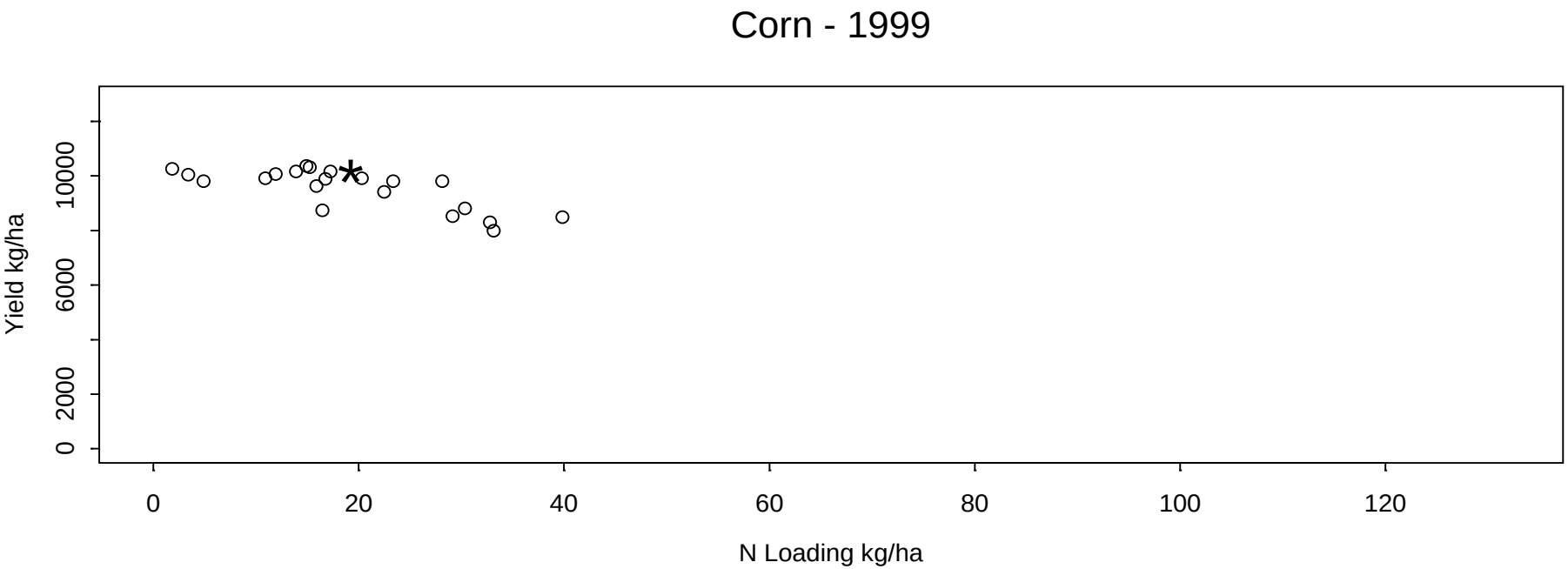

Soybean - 1996
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

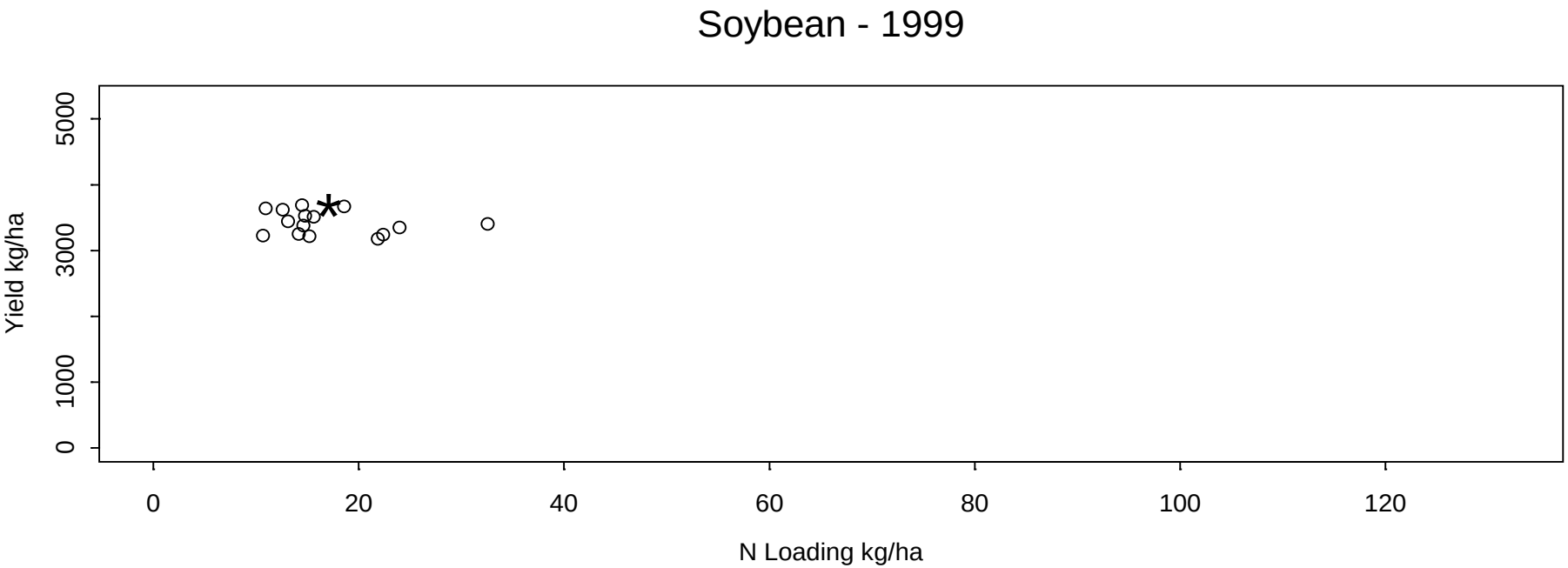

Corn - 1997
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

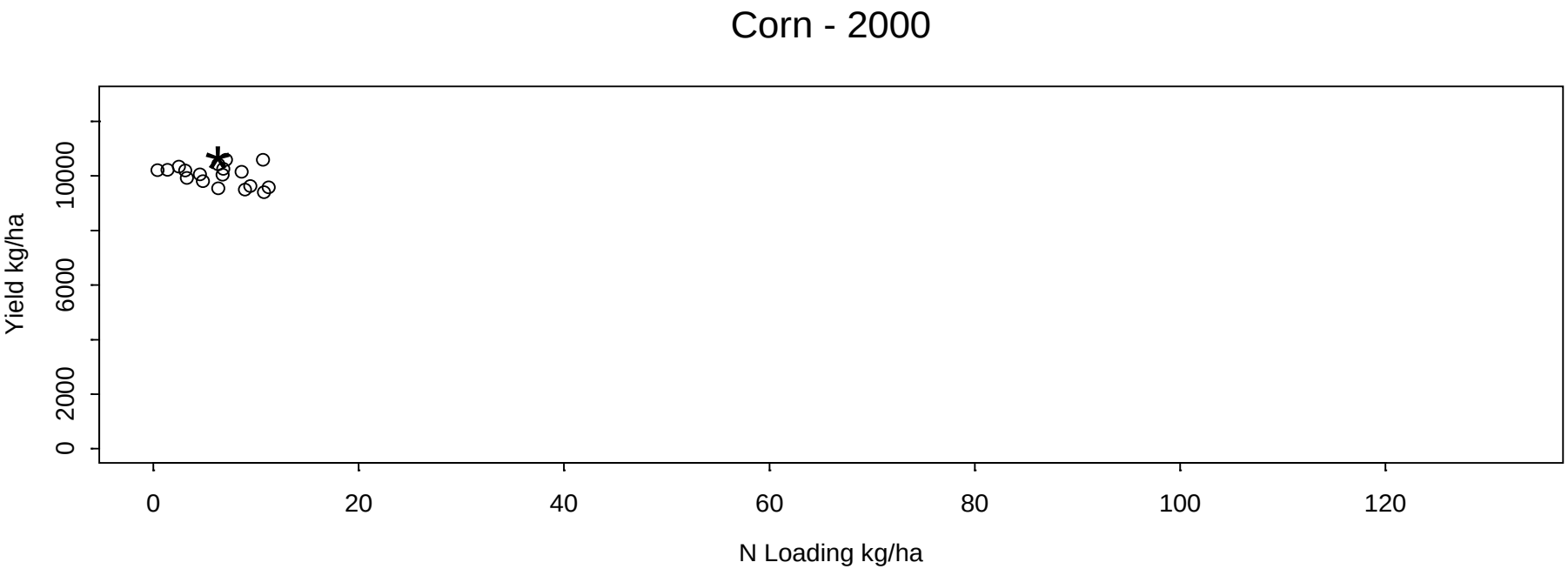

Soybean - 1997
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

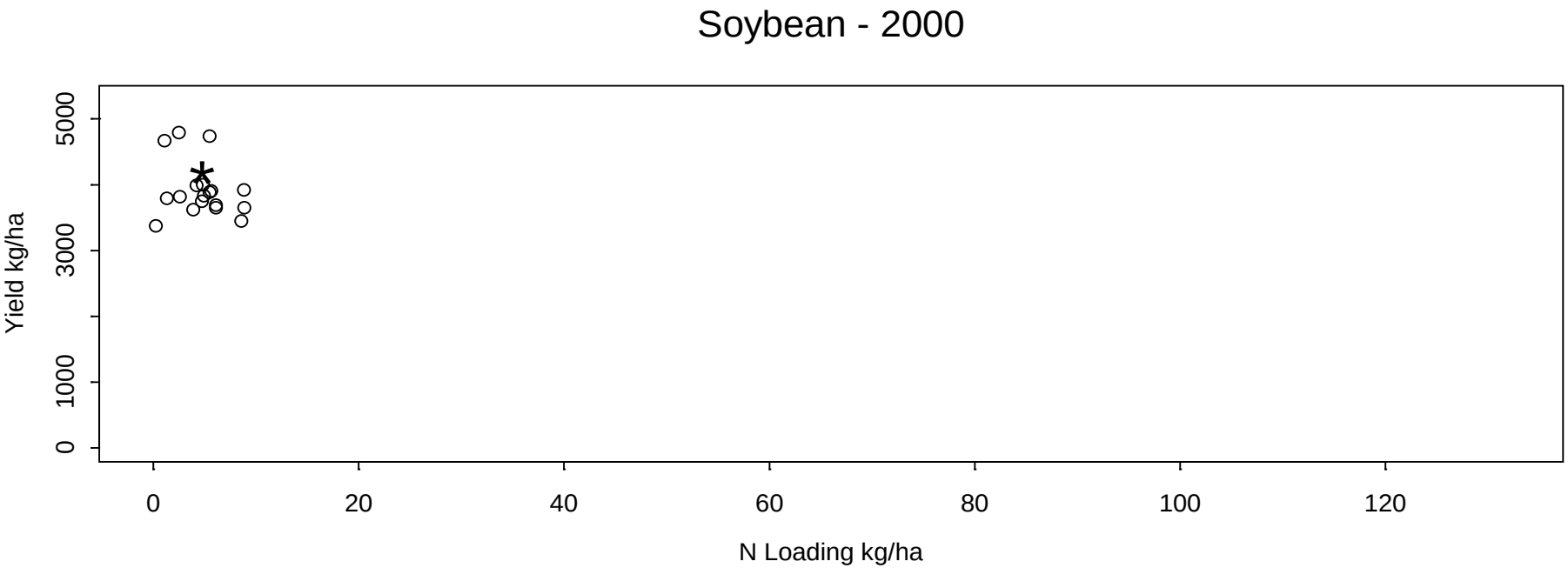

Corn - 1998
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

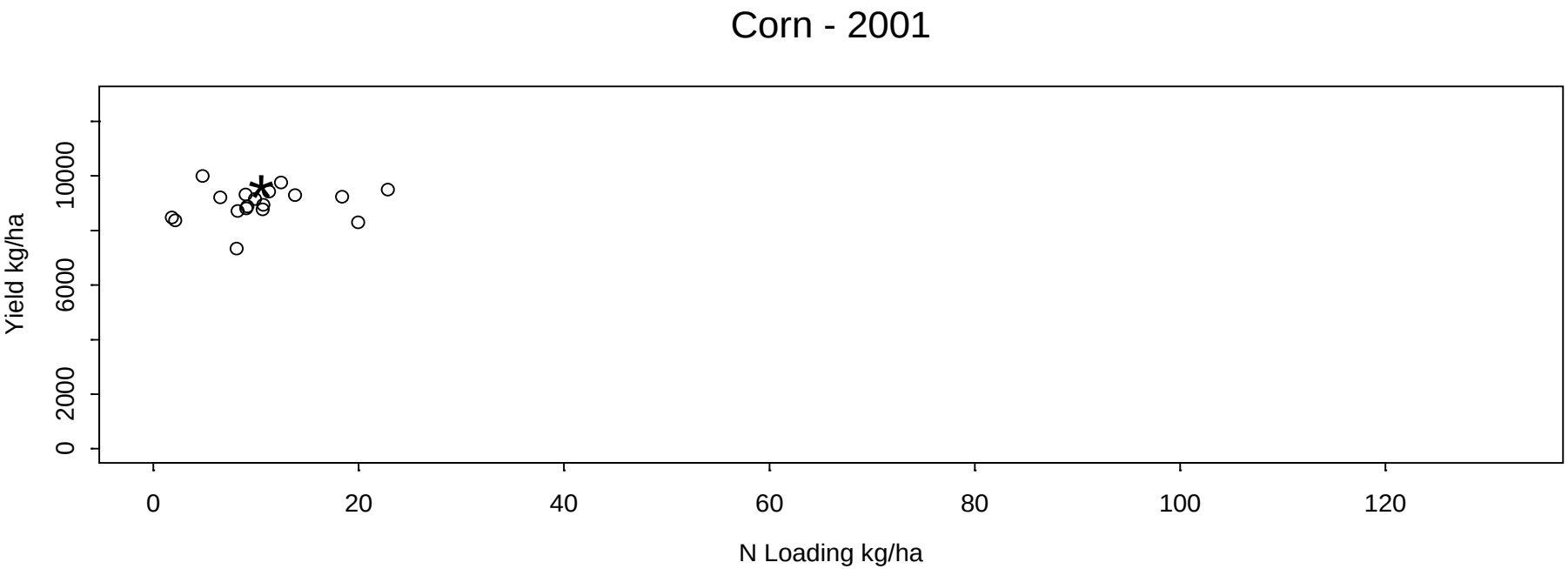

Soybean - 1998
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

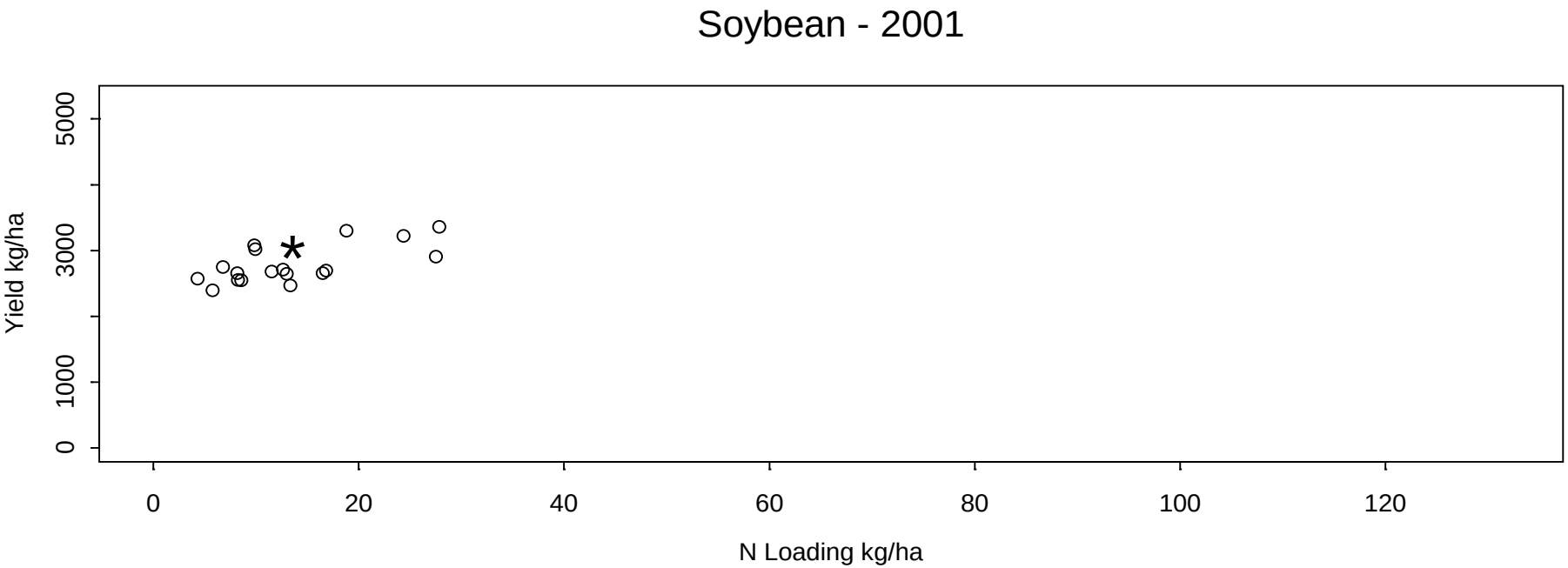

Corn - 1999
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

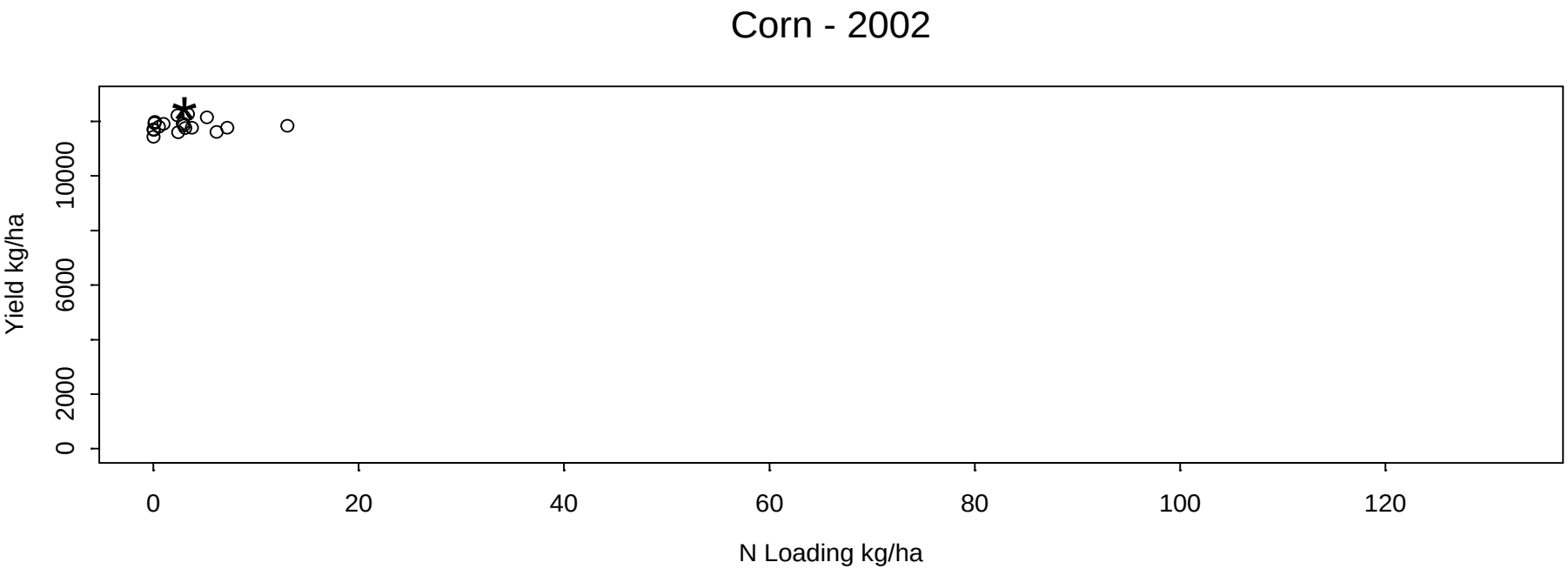

Soybean - 1999
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

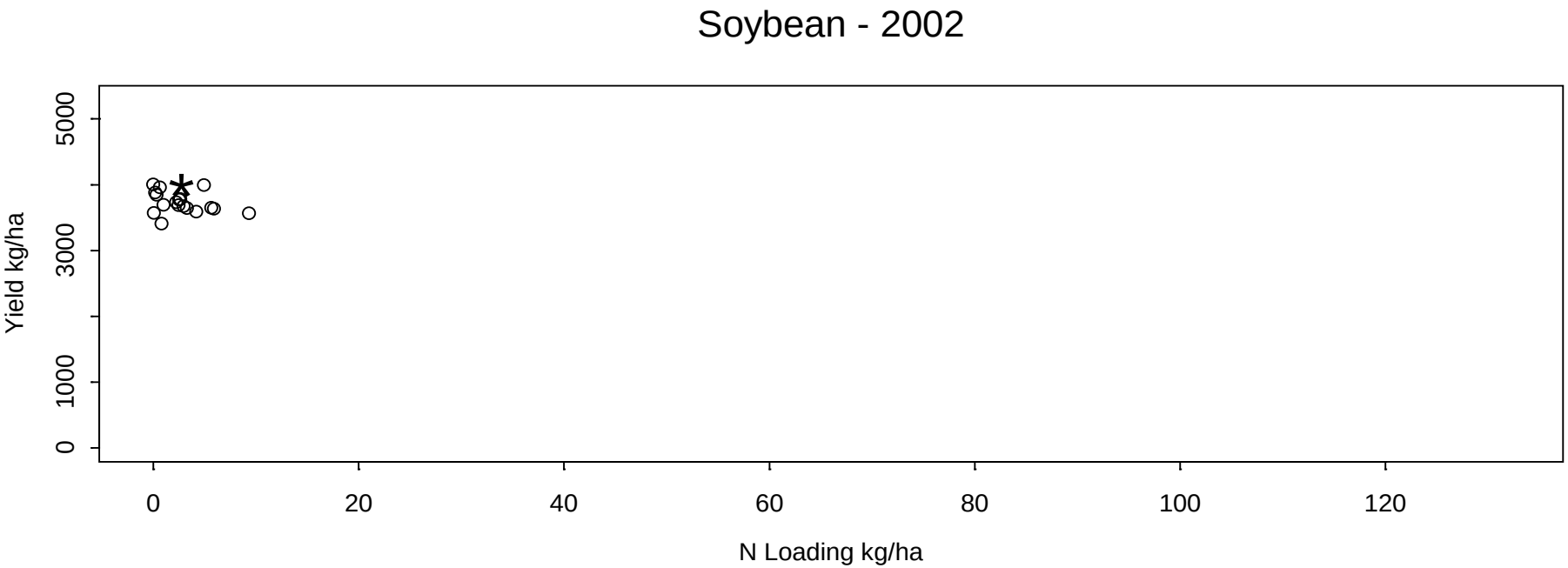

Corn - 2000
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha

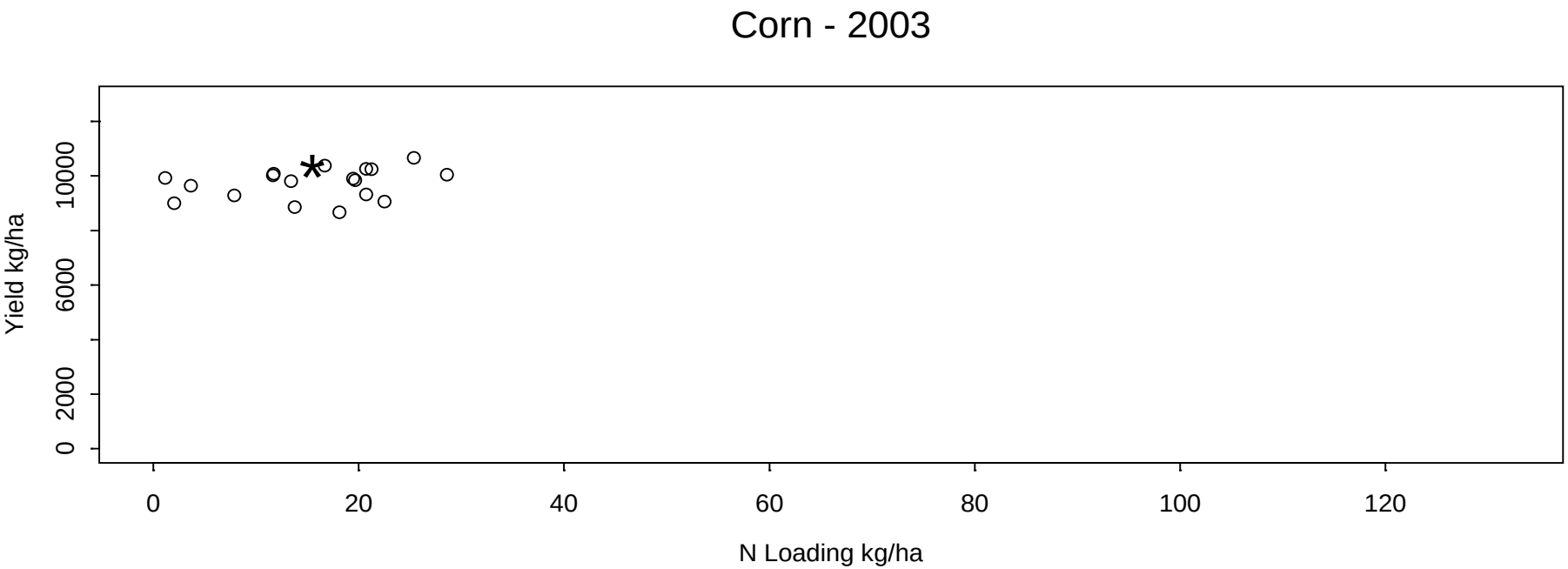

Soybean - 2000
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha

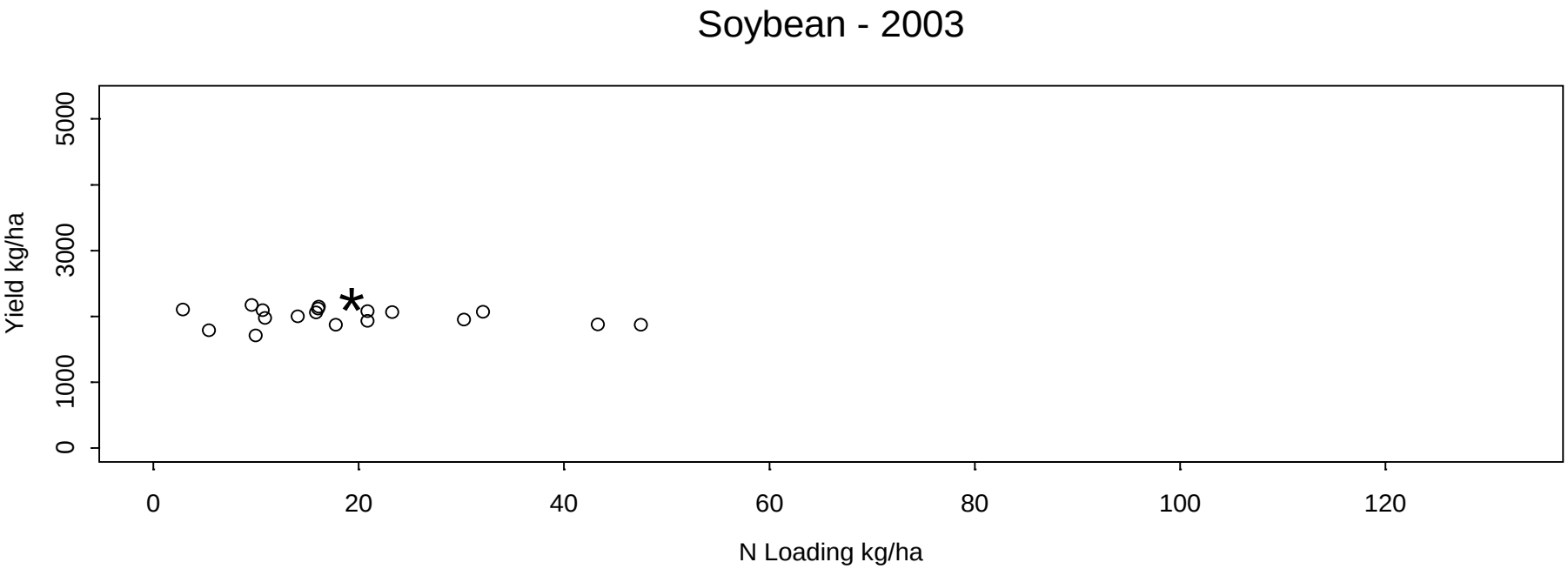

Corn - 2001
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha


Soybean - 2001
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha


Corn - 2002
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha


Soybean - 2002
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha


Corn - 2003
Yield kg/ha
0
2000
6000
10000
0
20
40
60
80
100
120
N Loading kg/ha


Soybean - 2003
Yield kg/ha
0
1000
3000
5000
0
20
40
60
80
100
120
N Loading kg/ha