2024 年美國黃豆作物品質

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2024年一月

UNIVERSITY OF MINNESOTA
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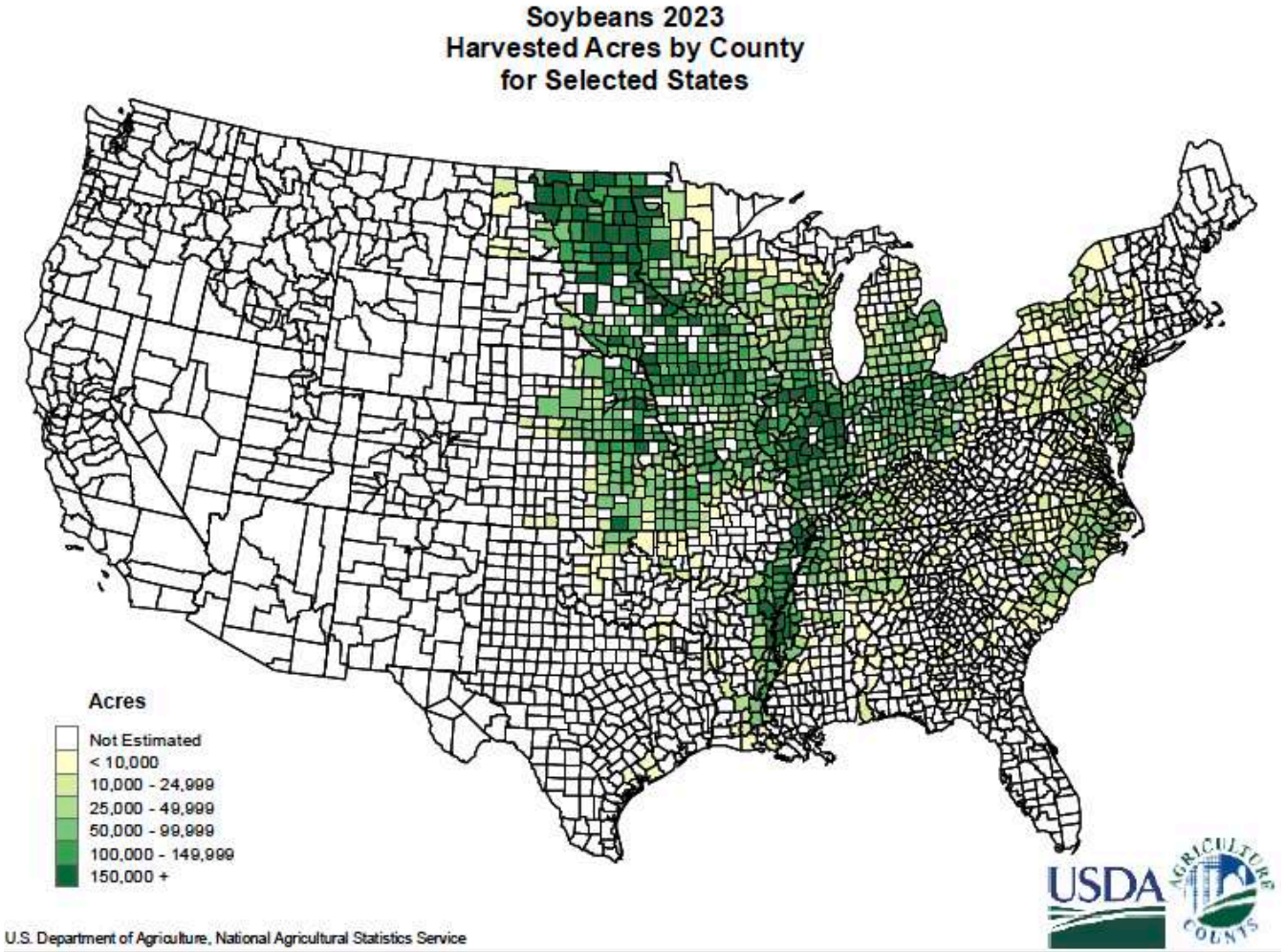
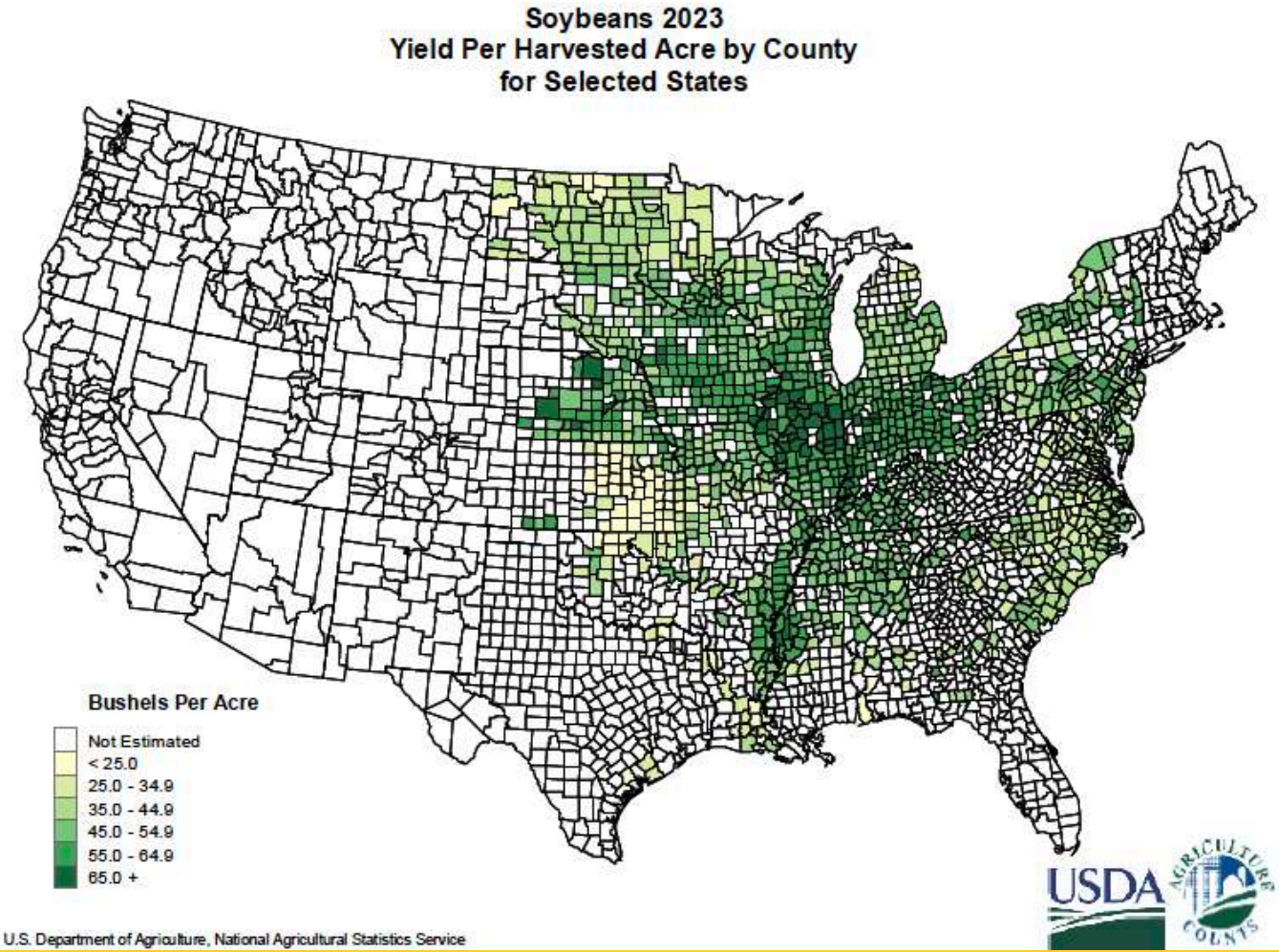
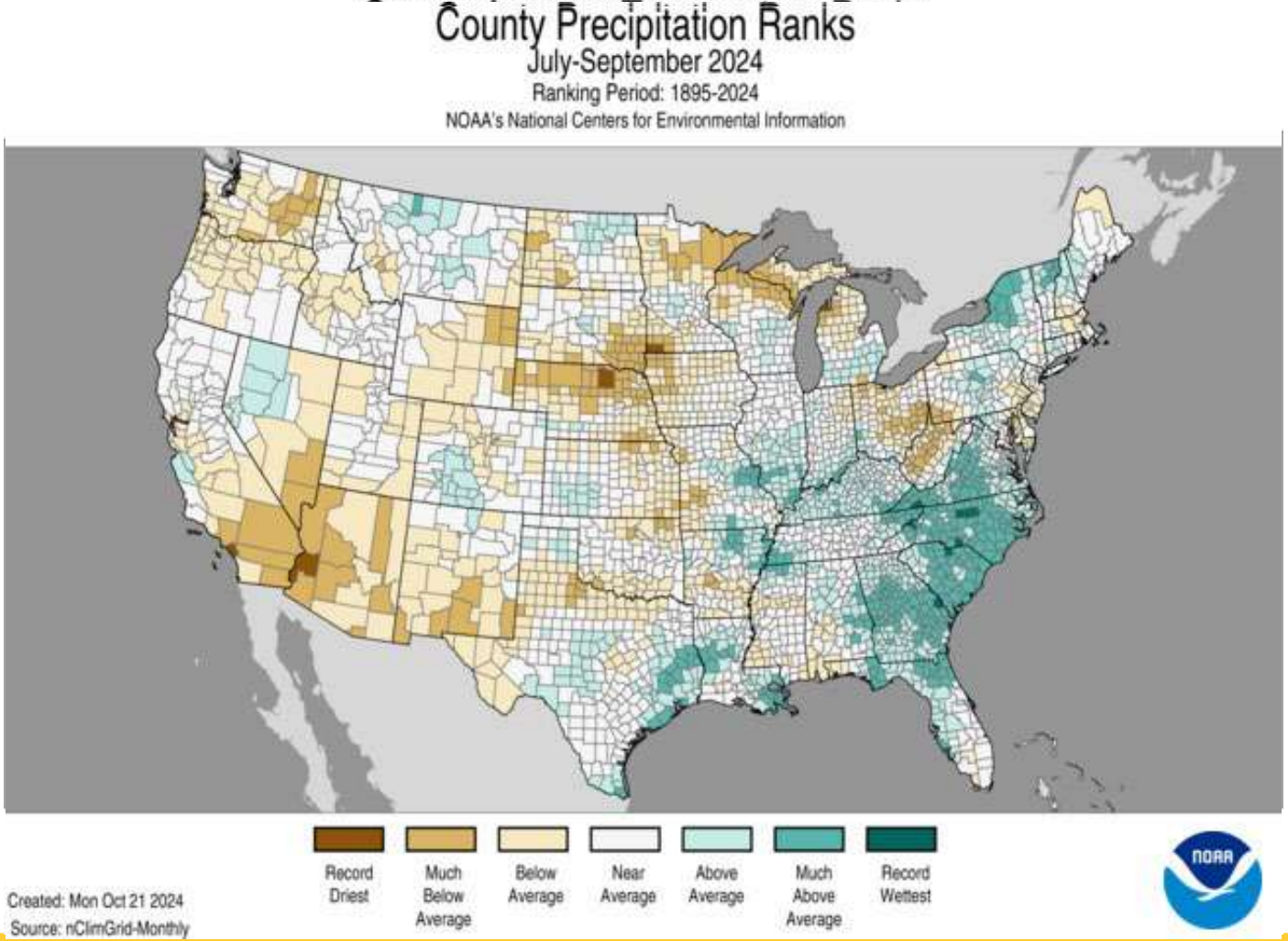


https://www.nass.usda.gov/Charts_and_Maps/Crops_County/index.php#sb



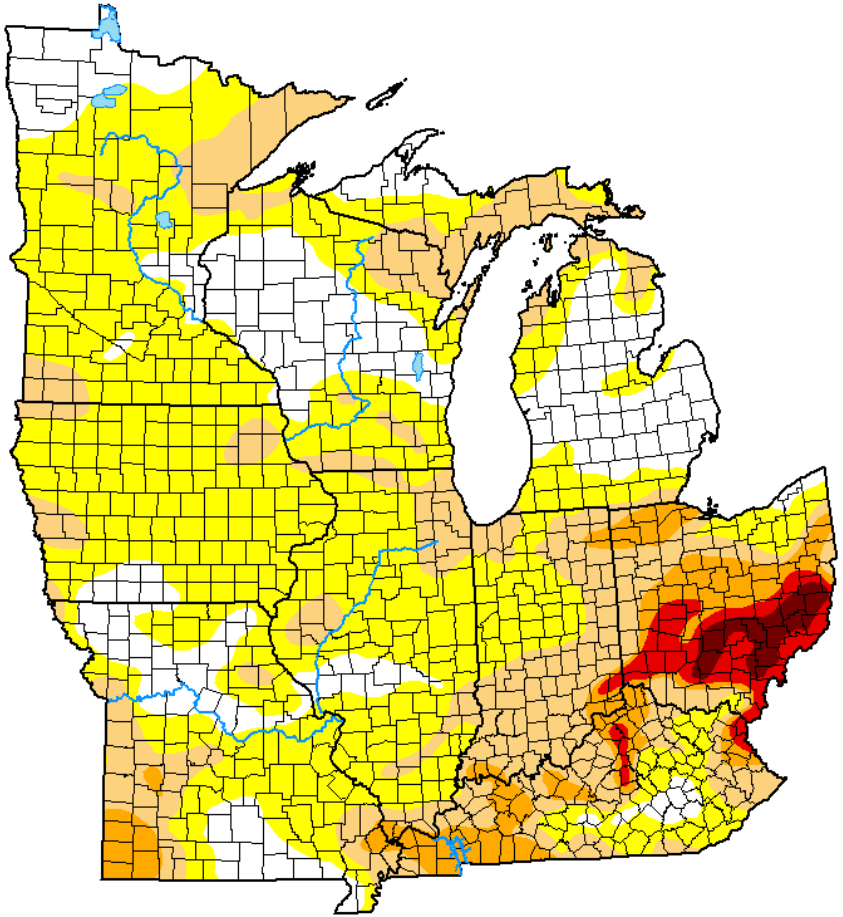
https://www.nass.usda.gov/Charts_and_Maps/Crops_County/index.php#sb

重大天氣事件



https://www.ncei.noaa.gov/access/monitoring/us-maps/

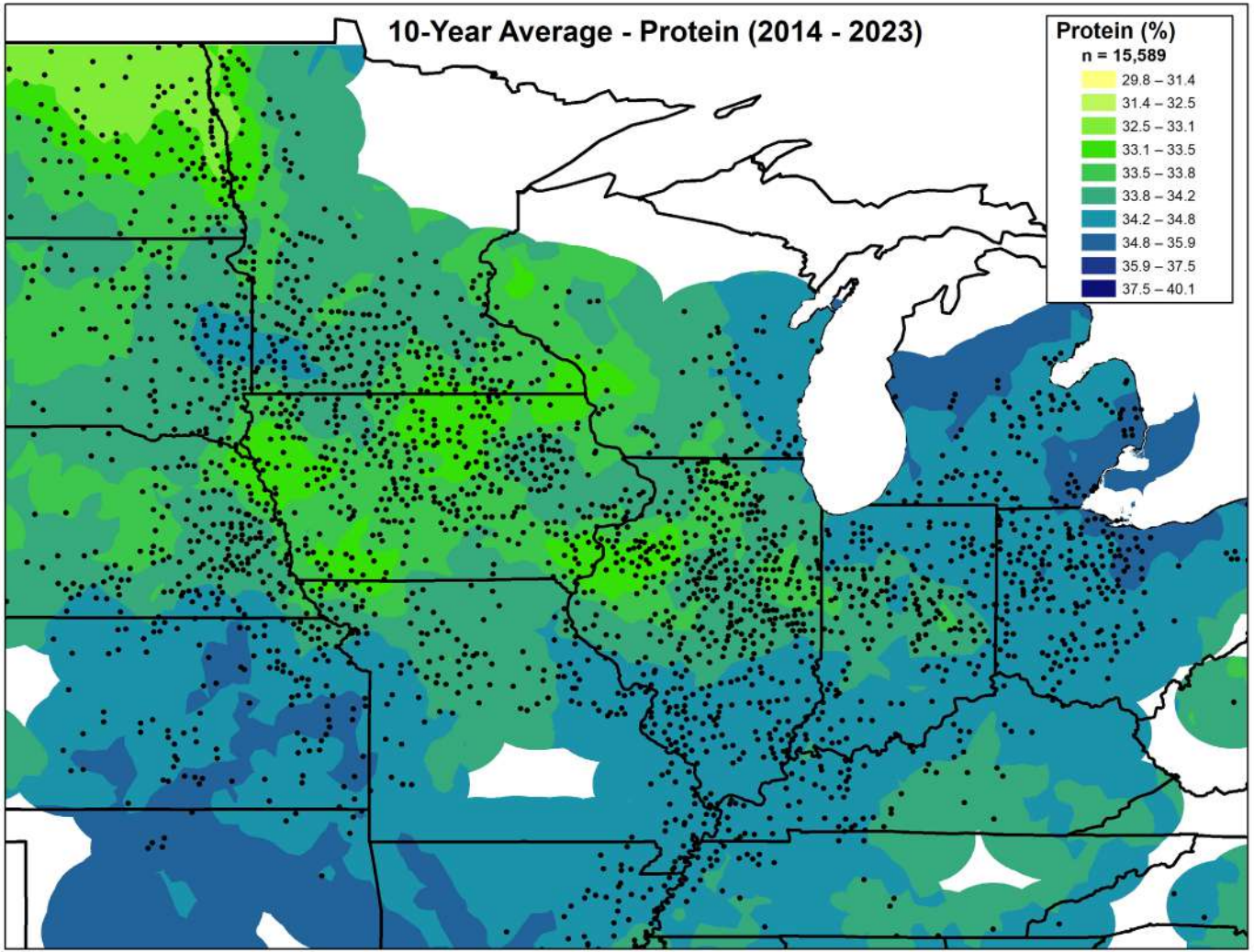
2024 年 9 月 9 日

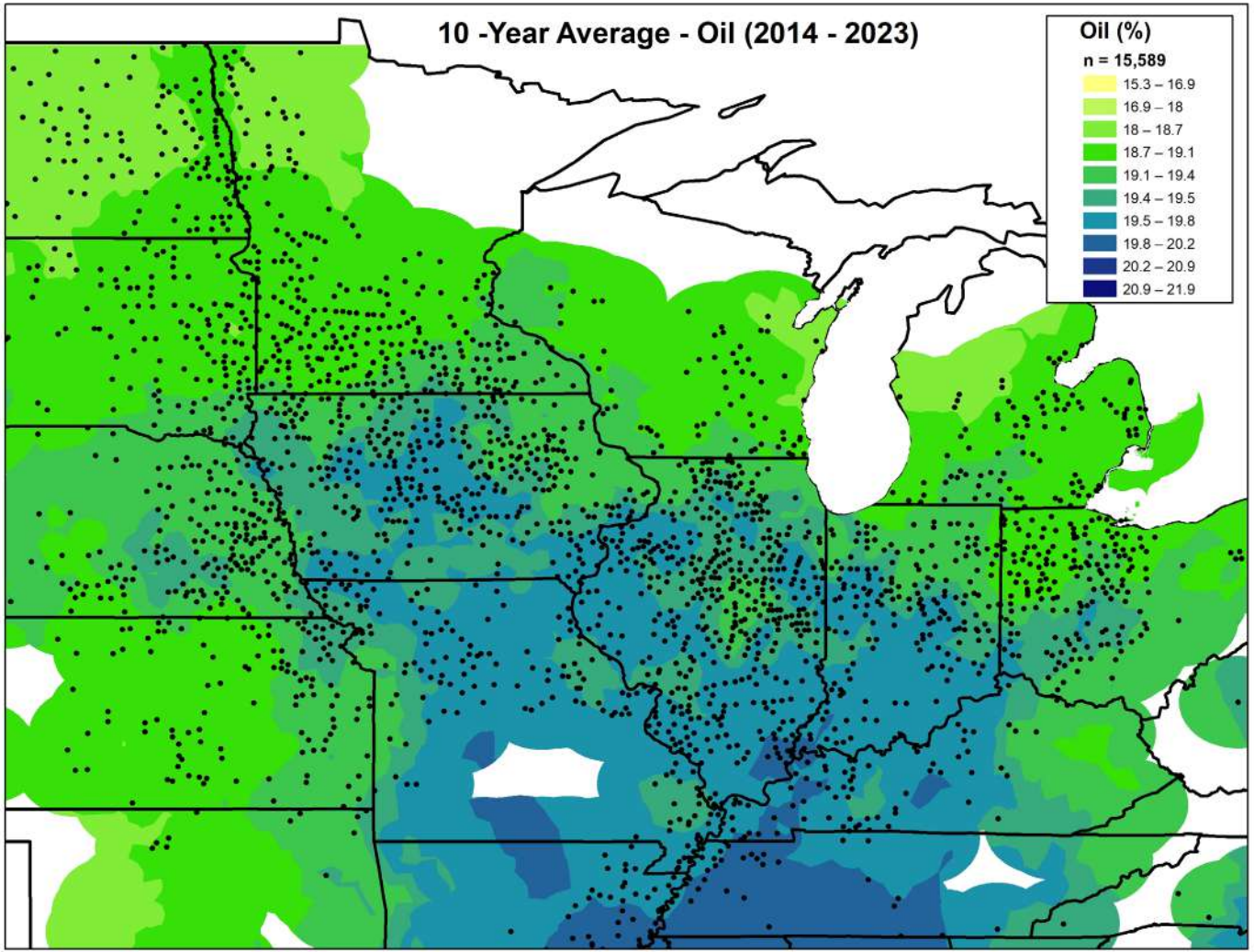


droughtmonitor.unl.edu

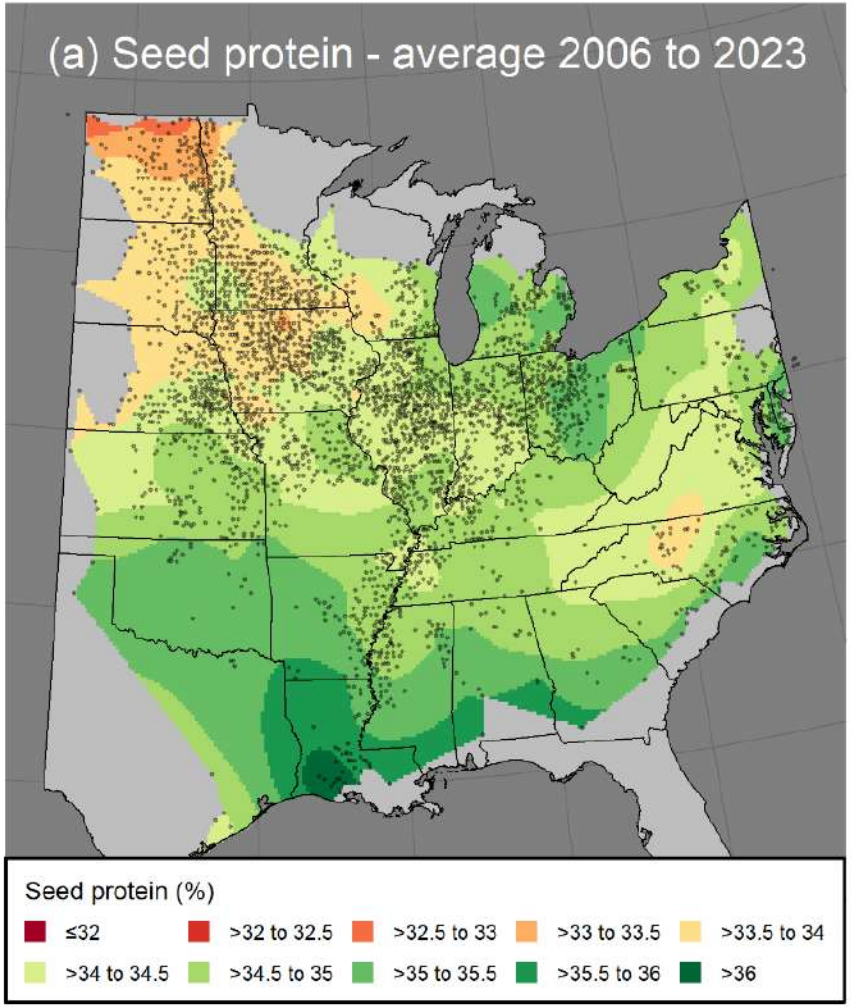
2024年美國黃豆作物品質

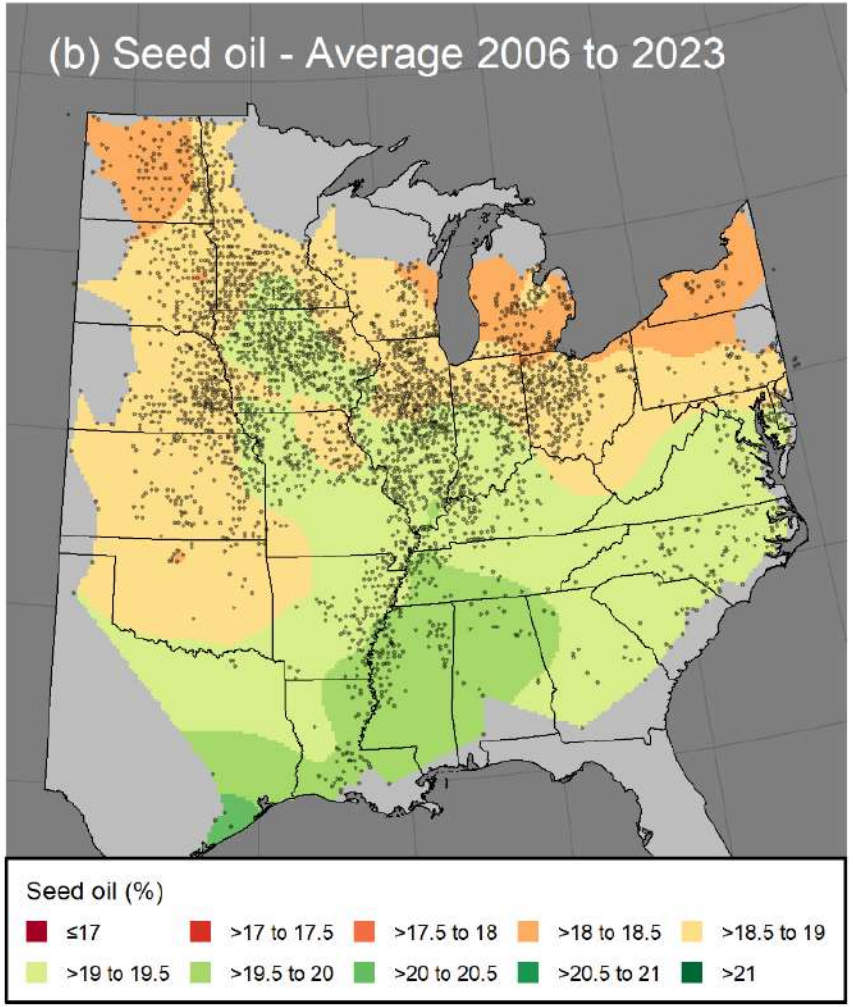
蛋白質與油脂的歷史變化

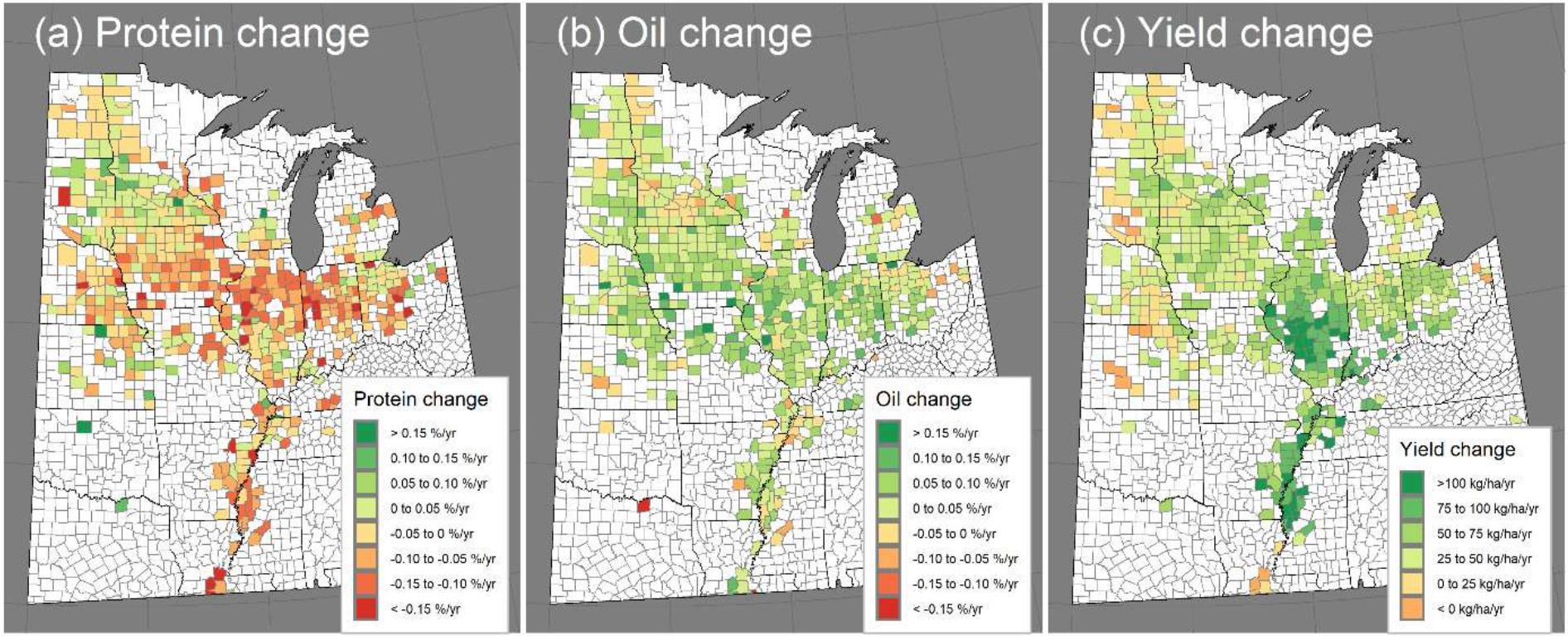

10-Year Average - Protein (2014 - 2023)
Protein (%)
n = 15,589
29.8 – 31.4
31.4 – 32.5
32.5 – 33.1
33.1 – 33.5
33.5 – 33.8
33.8 – 34.2
34.2 – 34.8
34.8 – 35.9
35.9 – 37.5
37.5 – 40.1


10 -Year Average - Oil (2014 - 2023)
Oil (%)
n = 15,589
15.3 – 16.9
16.9 – 18
18 – 18.7
18.7 – 19.1
19.1 – 19.4
19.4 – 19.5
19.5 – 19.8
19.8 – 20.2
20.2 – 20.9
20.9 – 21.9


隨時間變化


(a) Seed protein - average 2006 to 2023
Seed protein (%)
≤32
>32 to 32.5
>32.5 to 33
>33 to 33.5
>33.5 to 34
>34 to 34.5
>34.5 to 35
>35 to 35.5
>35.5 to 36
>36

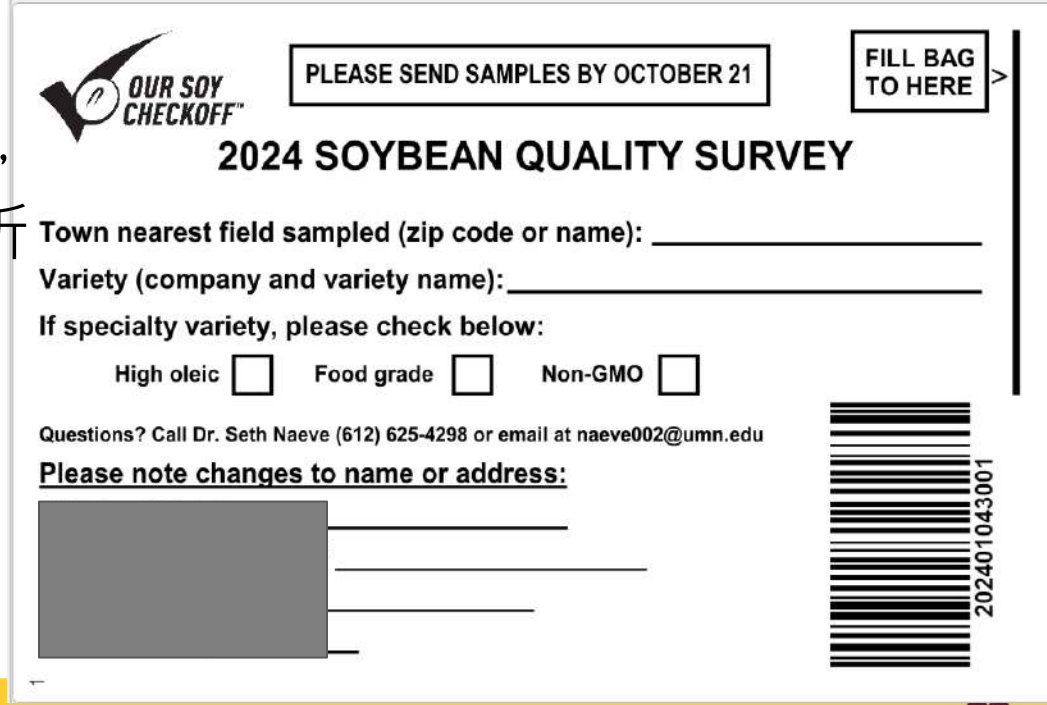

(b) Seed oil - Average 2006 to 2023
Seed oil (%)
≤17
>17 to 17.5
>17.5 to 18
>18 to 18.5
>18.5 to 19
>19 to 19.5
>19.5 to 20
>20 to 20.5
>20.5 to 21
>21


(a) Protein change
Protein change
> 0.15 %/yr
0.10 to 0.15 %/yr
0.05 to 0.10 %/yr
0 to 0.05 %/yr
-0.05 to 0 %/yr
-0.10 to -0.05 %/yr
-0.15 to -0.10 %/yr
< -0.15 %/yr
(b) Oil change
Oil change
> 0.15 %/yr
0.10 to 0.15 %/yr
0.05 to 0.10 %/yr
0 to 0.05 %/yr
-0.05 to 0 %/yr
-0.10 to -0.05 %/yr
-0.15 to -0.10 %/yr
< -0.15 %/yr
(c) Yield change
Yield change
>100 kg/ha/yr
75 to 100 kg/ha/yr
50 to 75 kg/ha/yr
25 to 50 kg/ha/yr
0 to 25 kg/ha/yr
< 0 kg/ha/yr


2024年調査結果
Voyager Pro
WEIGHING
UNITS
1.29835 lb
588.92 g
OHAUS
USSEC
2008 Food Soybean
Quality Survey
Variety (name/number and company):
Intended use:
Tofu
Natto
Miso
Other
Additional characteristics:
Special oil
Non-GMO
Organic
Field location (zip code or town, state):
Producer name or specific field identifier:
Contracting company:
Questions? Call Dr. Seth Naeve at (612) 625-4296

2024年調查方法

- 根據各州黃豆產量，在八月向3,889家黃豆生產者郵寄了樣品包
- 截至 2024 年 10 月 30 日，收到 1,132 個樣本進行分析



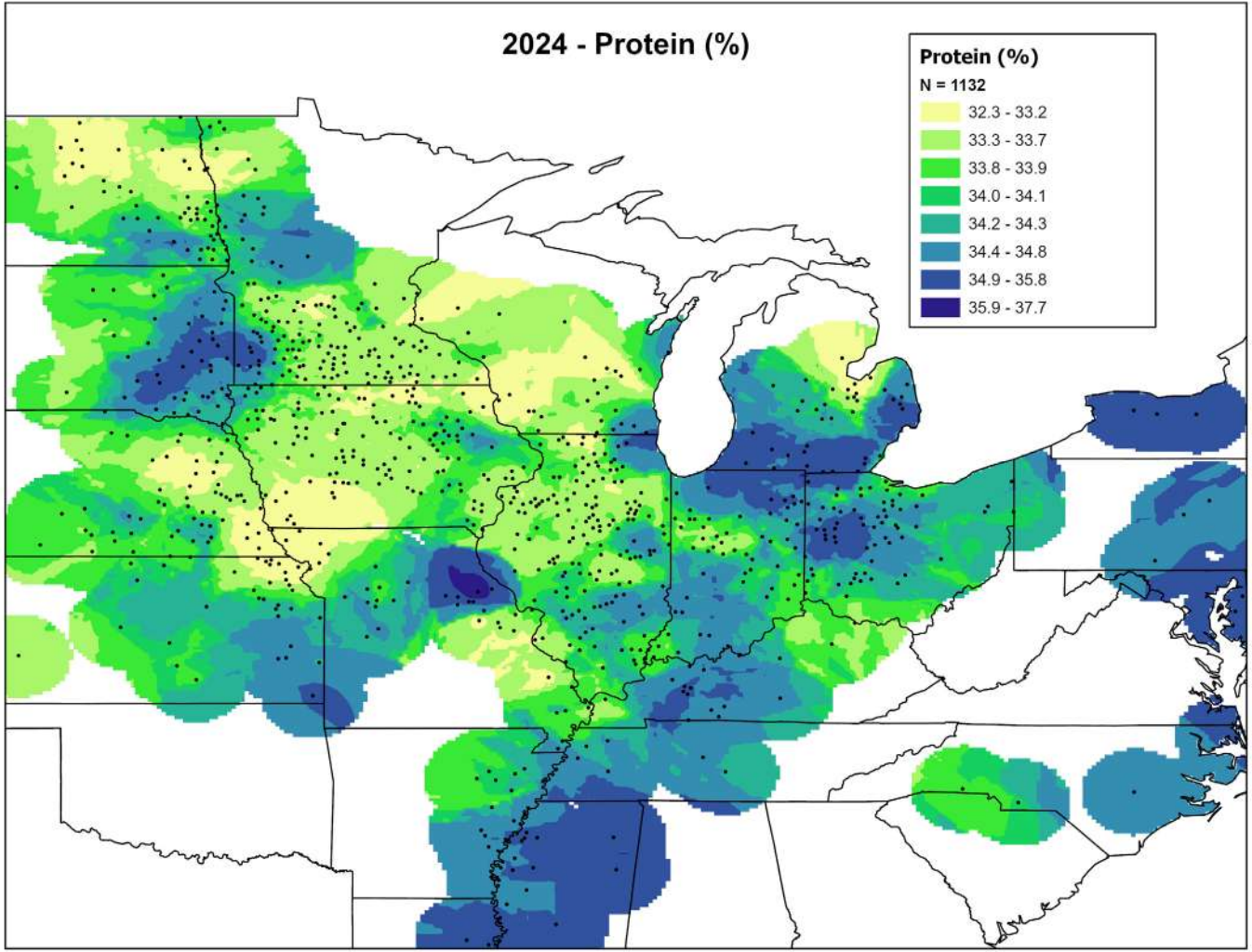
本實驗室短片

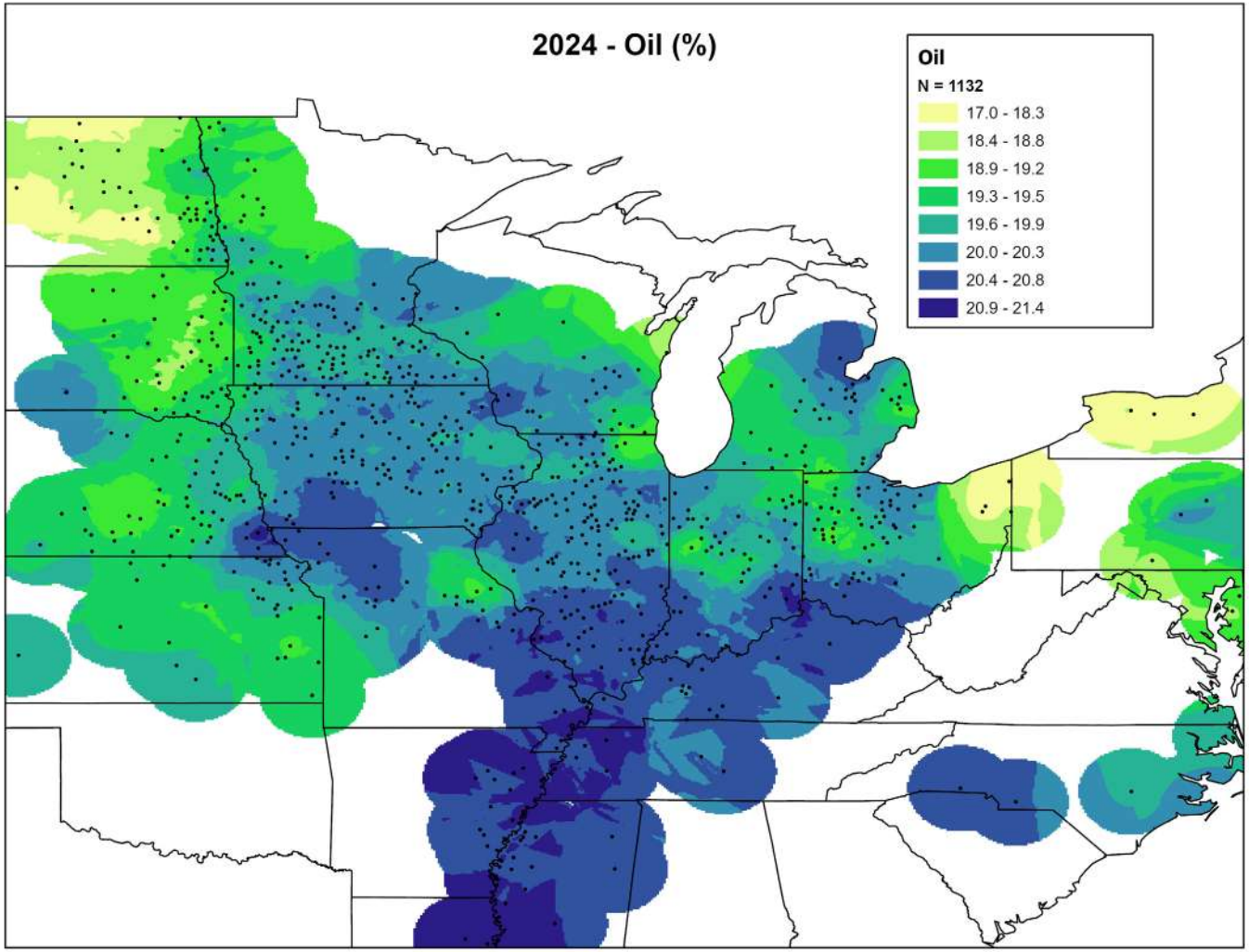
蛋白質和油脂

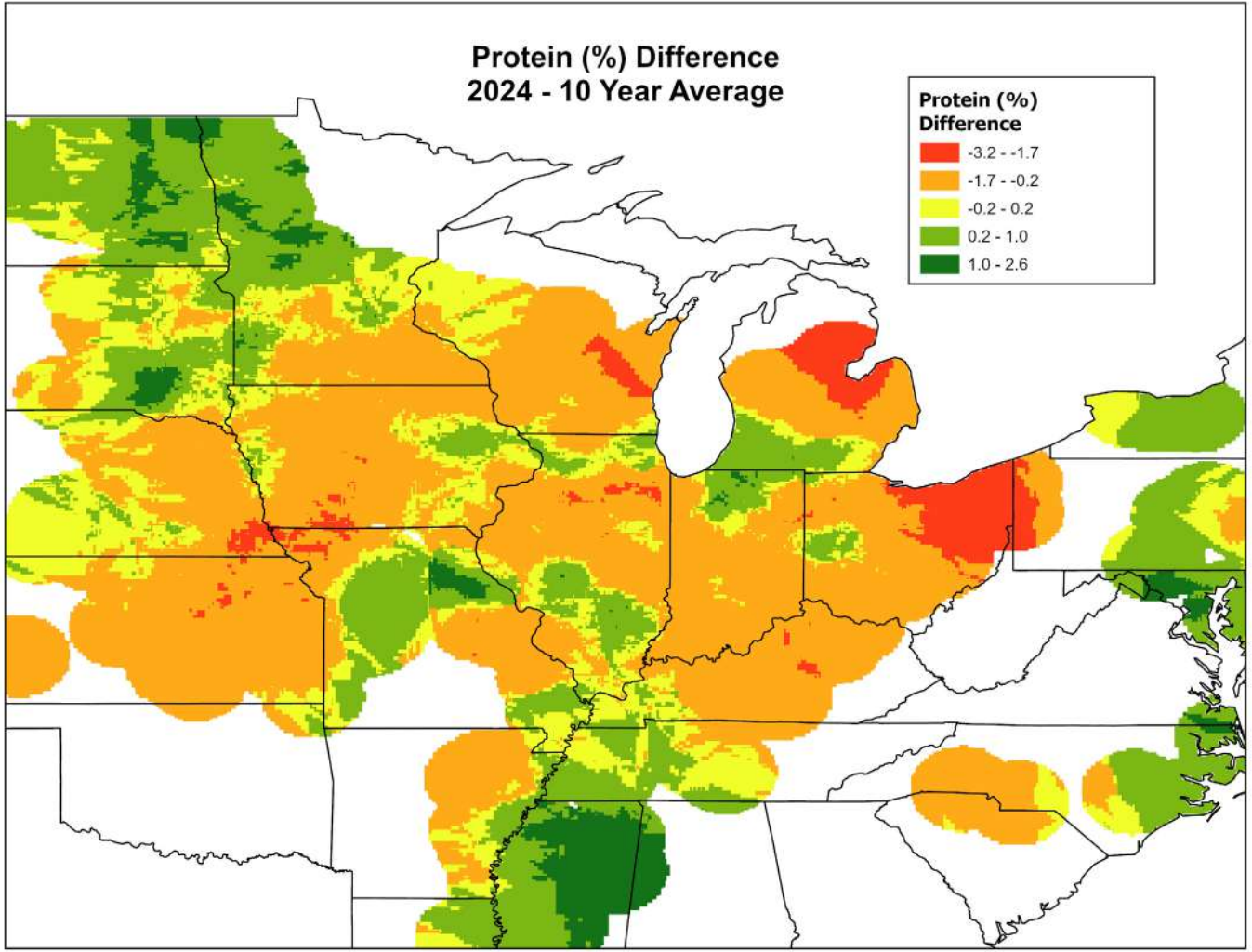
2024年美國平均值

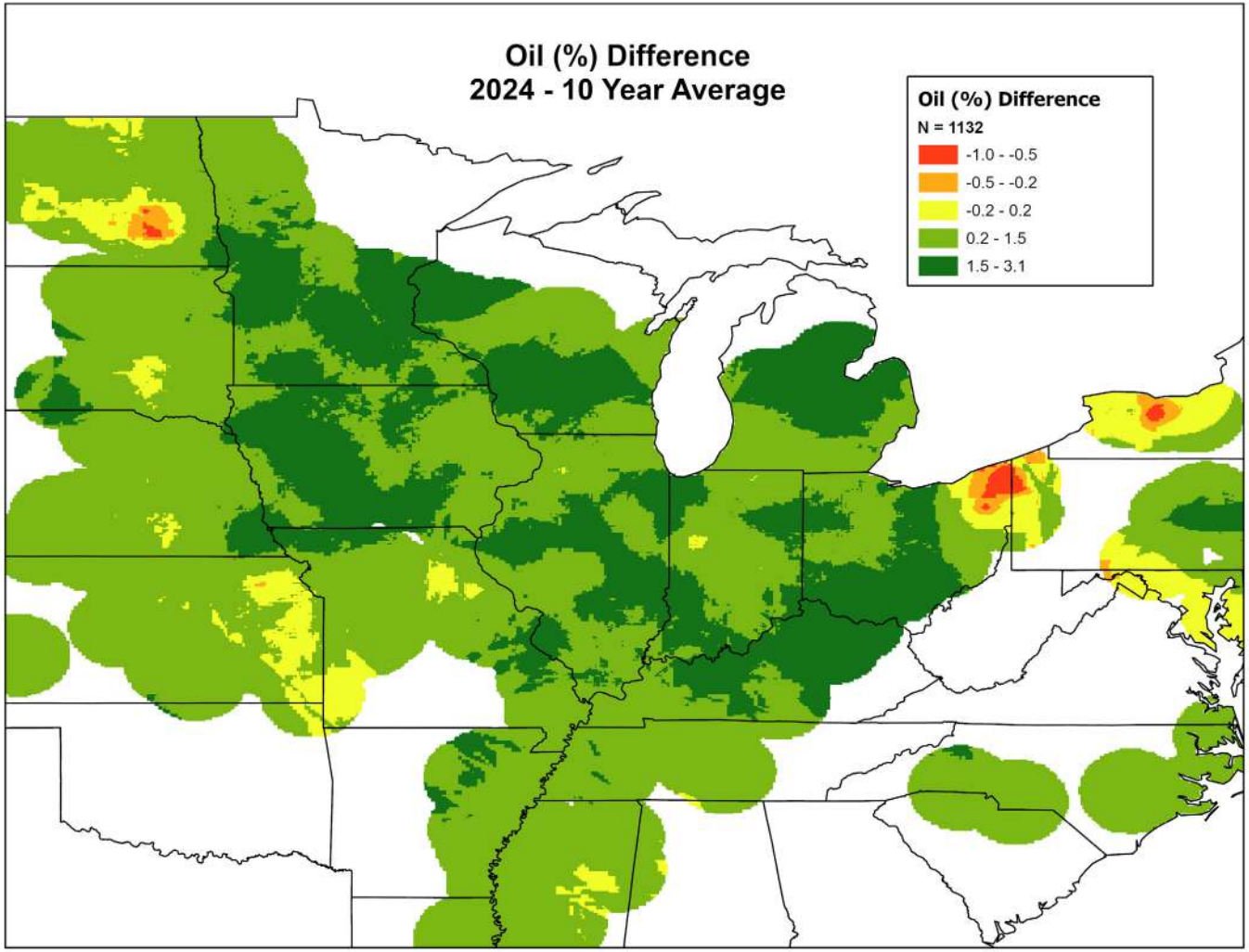
Region	Number of Samples	Protein (13%)	Change from 2023	Oil (13%)	Change from 2023	Seed Weight (g/100 seeds)
US Average	1130	33.9		19.8		16.0
Average of 2024 Crop†		34.0	0.3	19.9	0.3	15.9
US 2014-2023 avg.		34.1		19.3		

†US average values weighted based on estimated production by state as estimated by USDA, NASS Crop Production Report (October 2024)

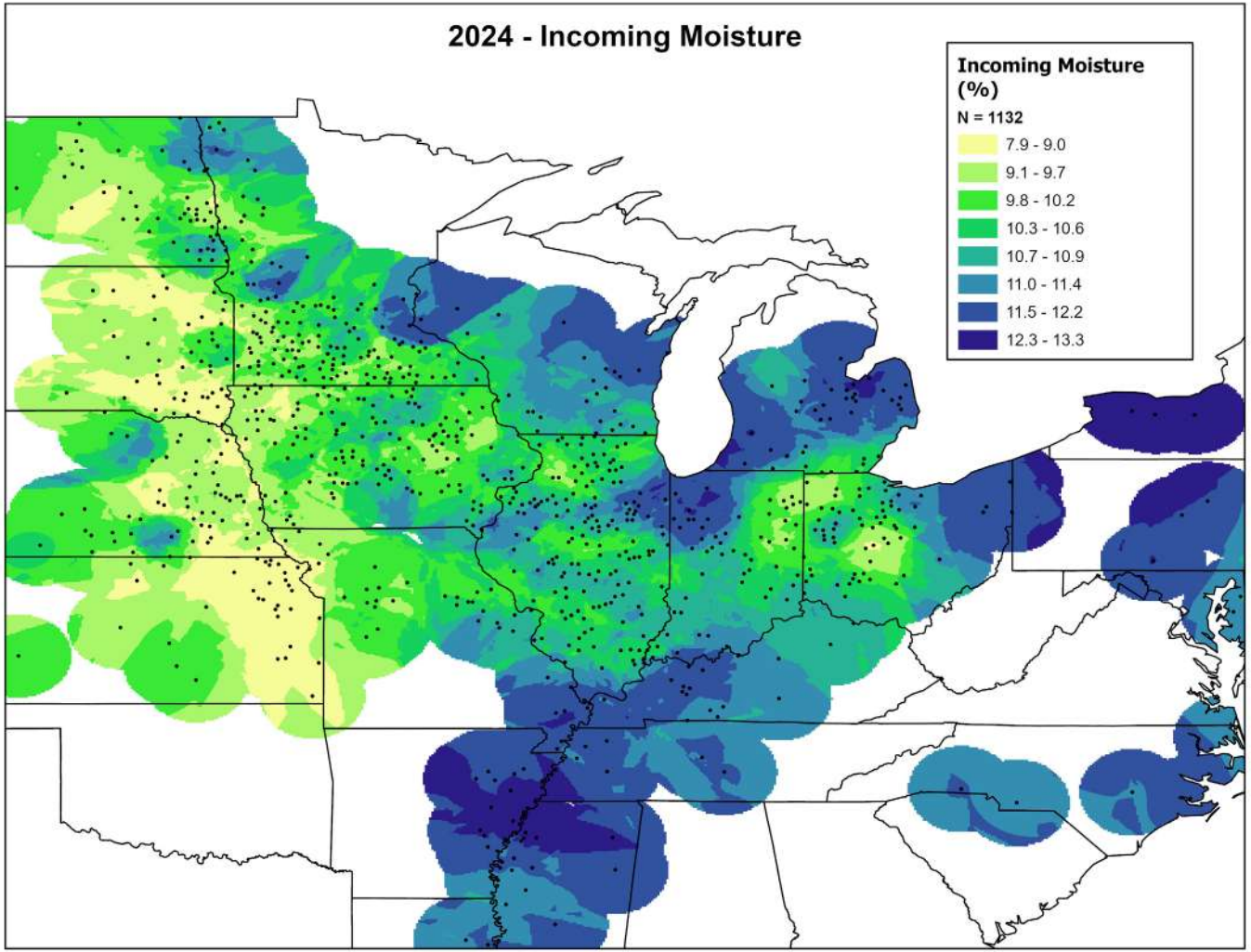

2024 - Protein (%)
Protein (%)
N = 1132
32.3 - 33.2
33.3 - 33.7
33.8 - 33.9
34.0 - 34.1
34.2 - 34.3
34.4 - 34.8
34.9 - 35.8
35.9 - 37.7

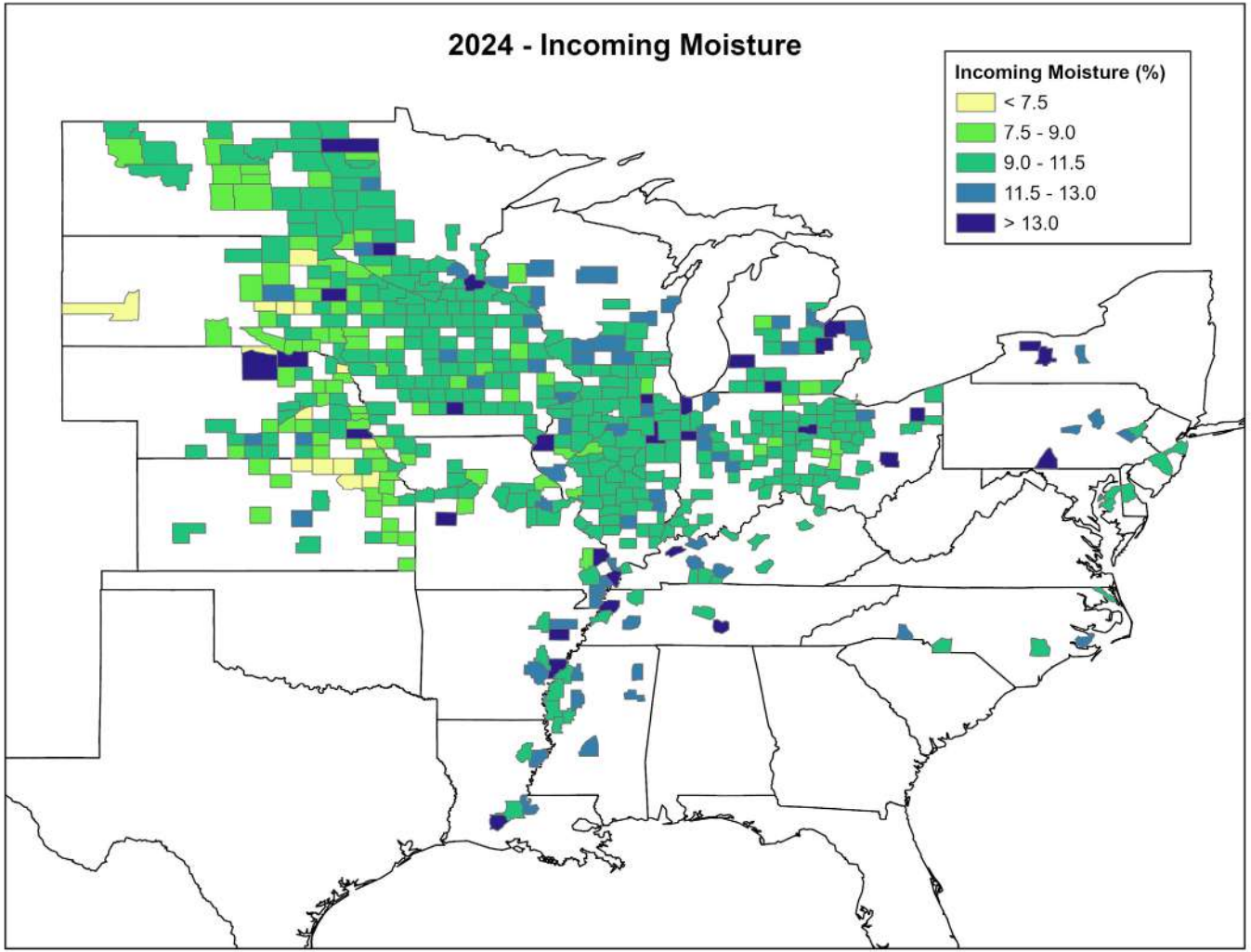

2024 - Oil (%)
Oil
N = 1132
17.0 - 18.3
18.4 - 18.8
18.9 - 19.2
19.3 - 19.5
19.6 - 19.9
20.0 - 20.3
20.4 - 20.8
20.9 - 21.4


Protein (%) Difference
2024 - 10 Year Average
Protein (%) Difference
-3.2 - -1.7
-1.7 - -0.2
-0.2 - 0.2
0.2 - 1.0
1.0 - 2.6


Oil (%) Difference
2024 - 10 Year Average
Oil (%) Difference
N = 1132
-1.0 - -0.5
-0.5 - -0.2
-0.2 - 0.2
0.2 - 1.5
1.5 - 3.1

物理性状


2024 - Incoming Moisture
Incoming Moisture (%)
N = 1132
7.9 - 9.0
9.1 - 9.7
9.8 - 10.2
10.3 - 10.6
10.7 - 10.9
11.0 - 11.4
11.5 - 12.2
12.3 - 13.3

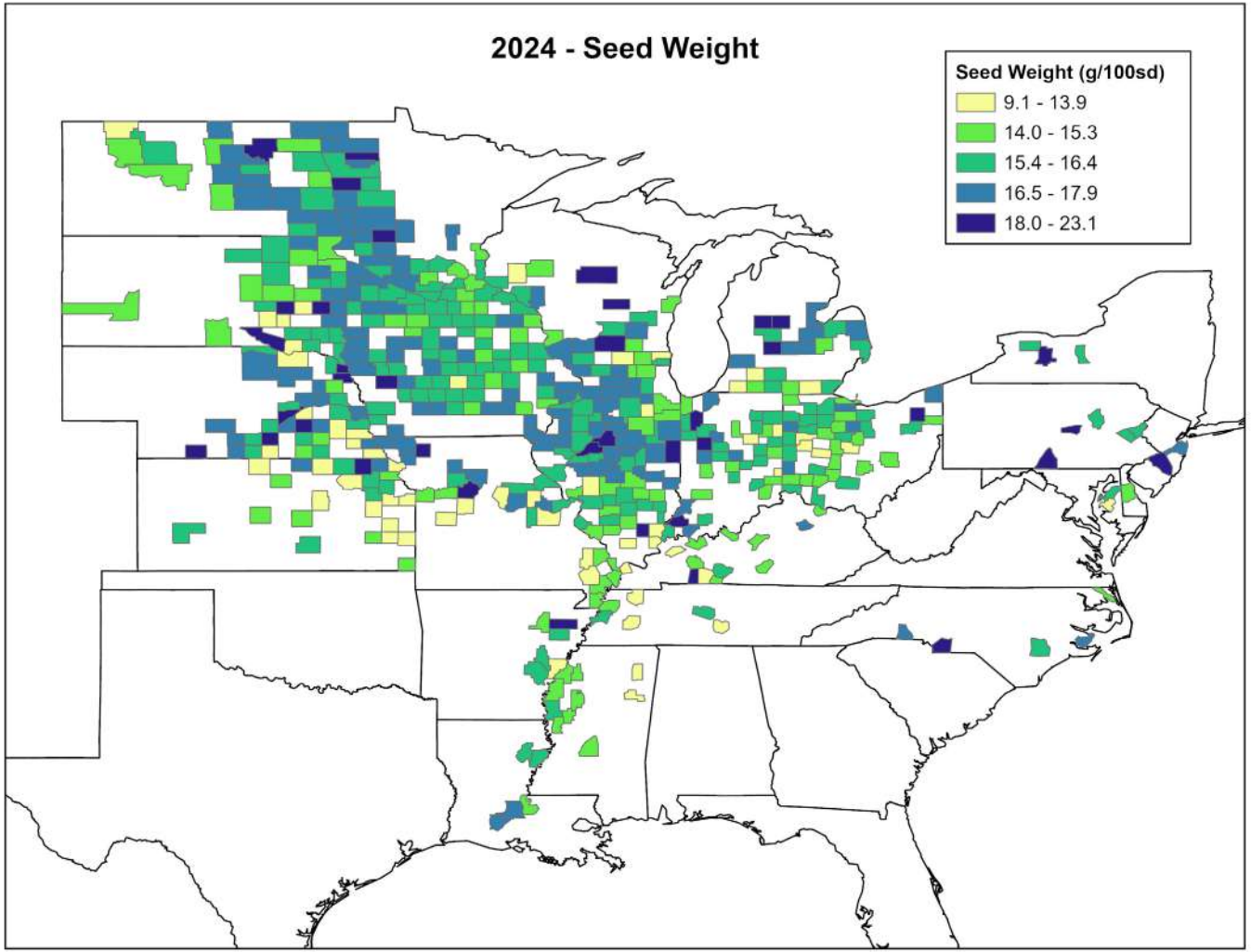

2024 - Incoming Moisture
Incoming Moisture (%)
< 7.5
7.5 - 9.0
9.0 - 11.5
11.5 - 13.0
> 13.0

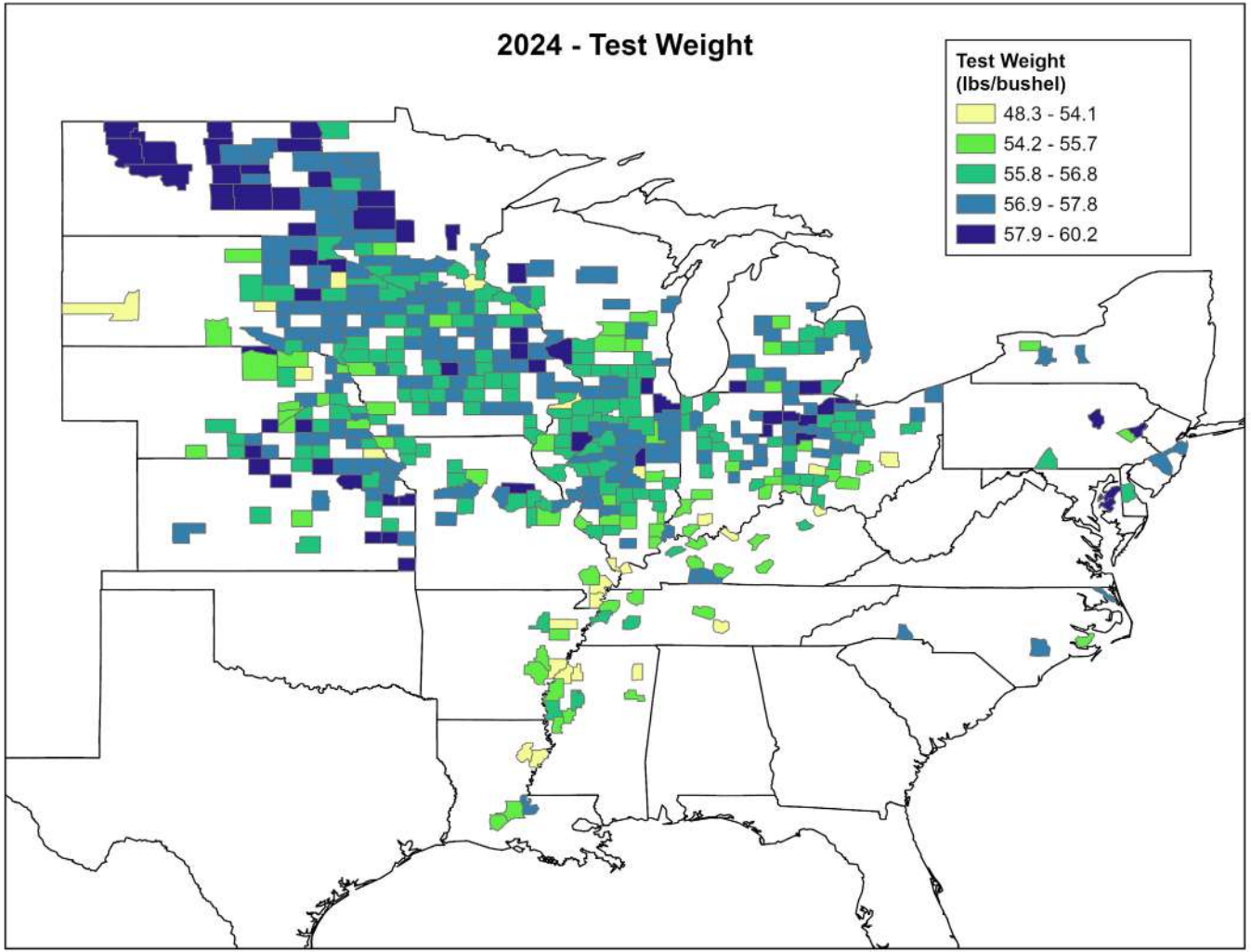
2024 作物，根據「實際含水量」分析

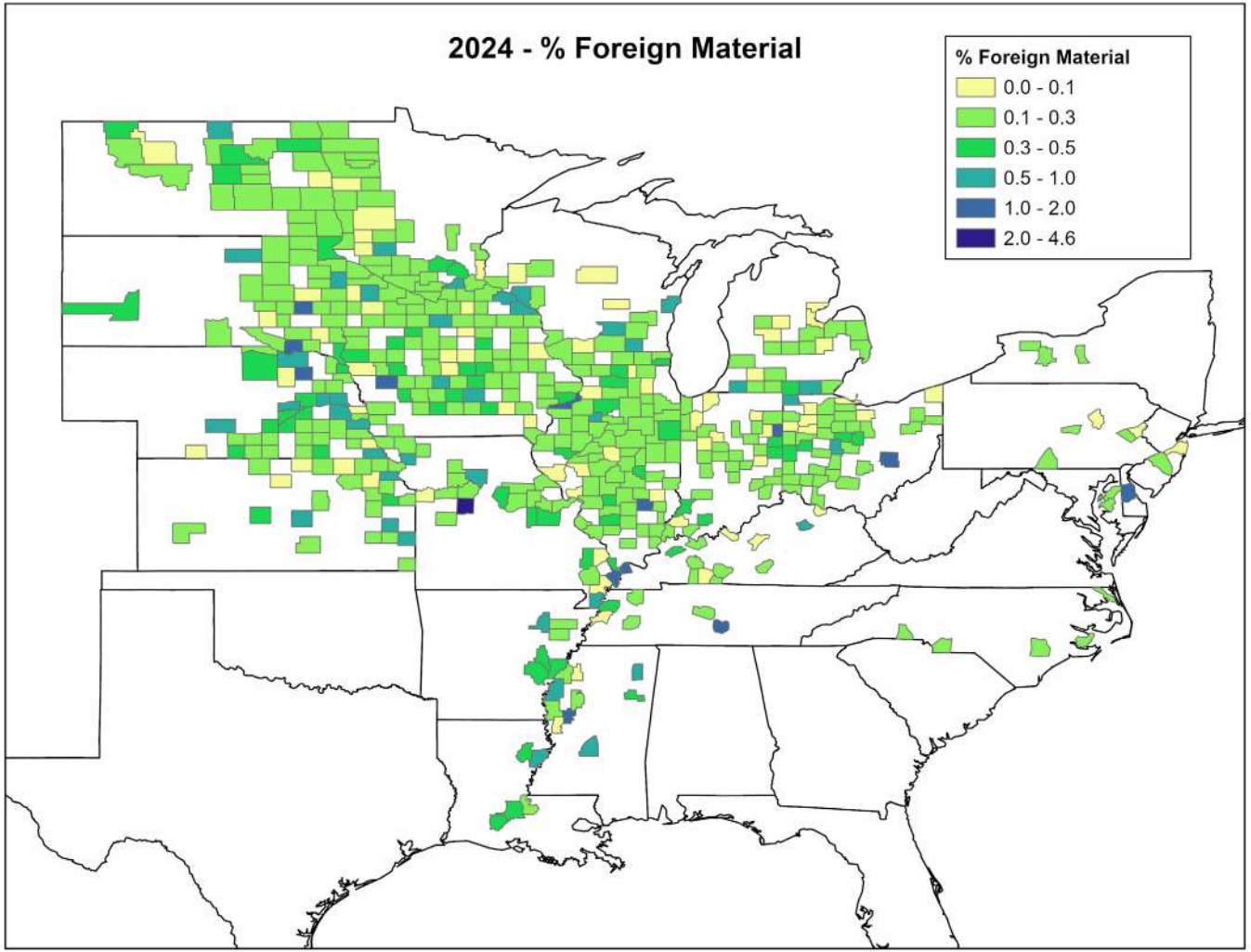
Region	Number of Samples		Protein	Change from 2023	Oil	Change from 2023
US Average	1130	(As-Is)	35		20.5	
Average of 2024 Crop†		**(As-Is)**	**35.0**	**0.8**	**20.5**	**0.6**
Average of 2024 Crop*		(13%)	34.0	0.3	19.9	0.3

† Regional and US average values weighted based on estimated production by state as estimated by USDA, NASS Crop Production Report (October 2024)

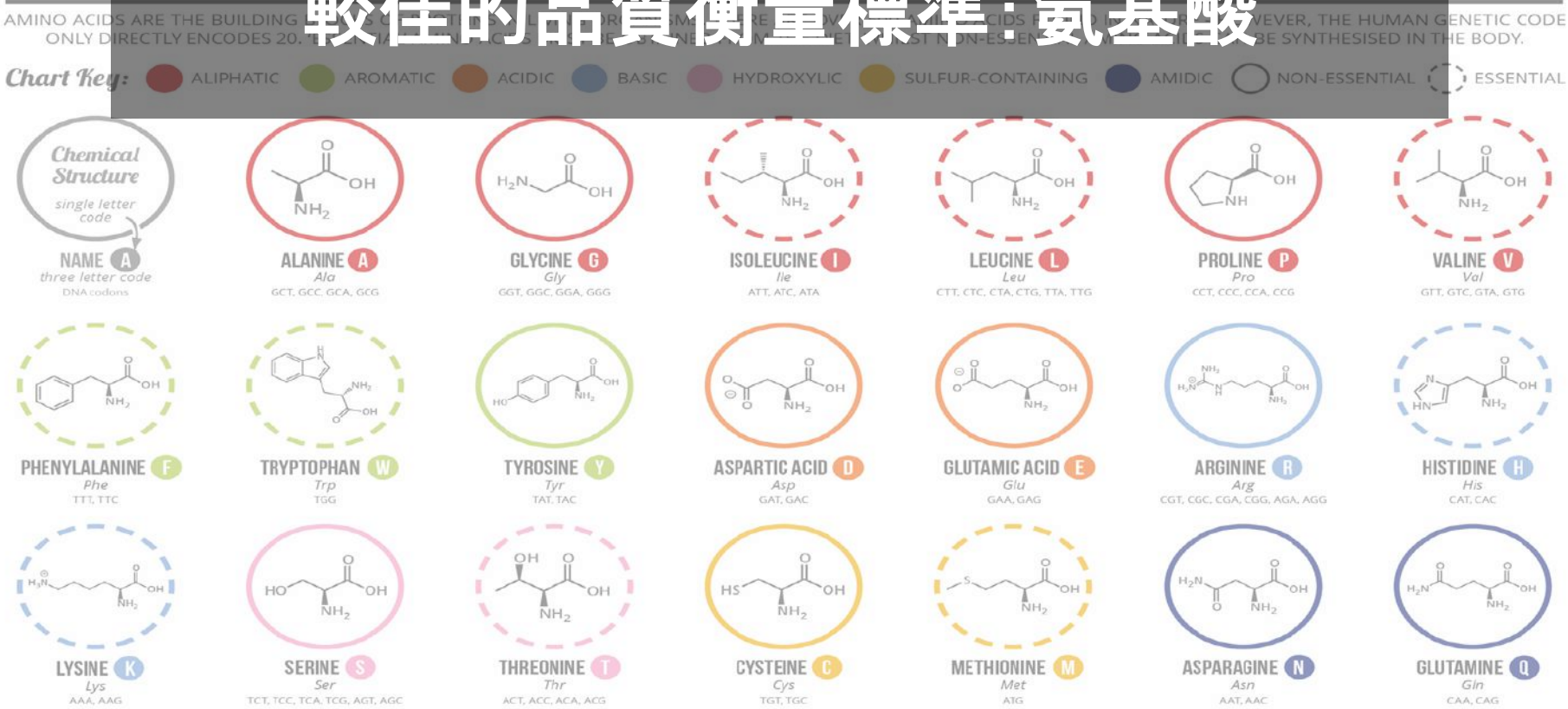
* 13% moisture basis - US average values weighted based on estimated production by state


2024 - Seed Weight
Seed Weight (g/100sd)
9.1 - 13.9
14.0 - 15.3
15.4 - 16.4
16.5 - 17.9
18.0 - 23.1


2024 - Test Weight
Test Weight
(lbs/bushel)
48.3 - 54.1
54.2 - 55.7
55.8 - 56.8
56.9 - 57.8
57.9 - 60.2


2024 - % Foreign Material
% Foreign Material
0.0 - 0.1
0.1 - 0.3
0.3 - 0.5
0.5 - 1.0
1.0 - 2.0
2.0 - 4.6

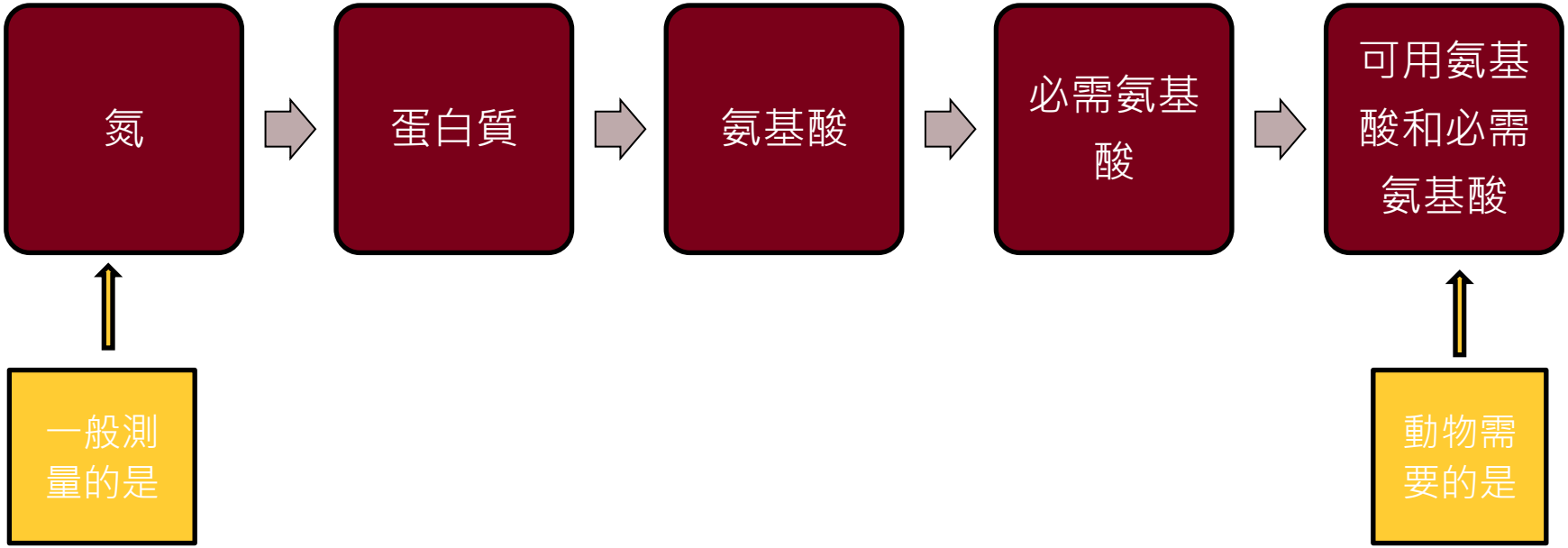
較佳的品質衡量標準:氨基酸

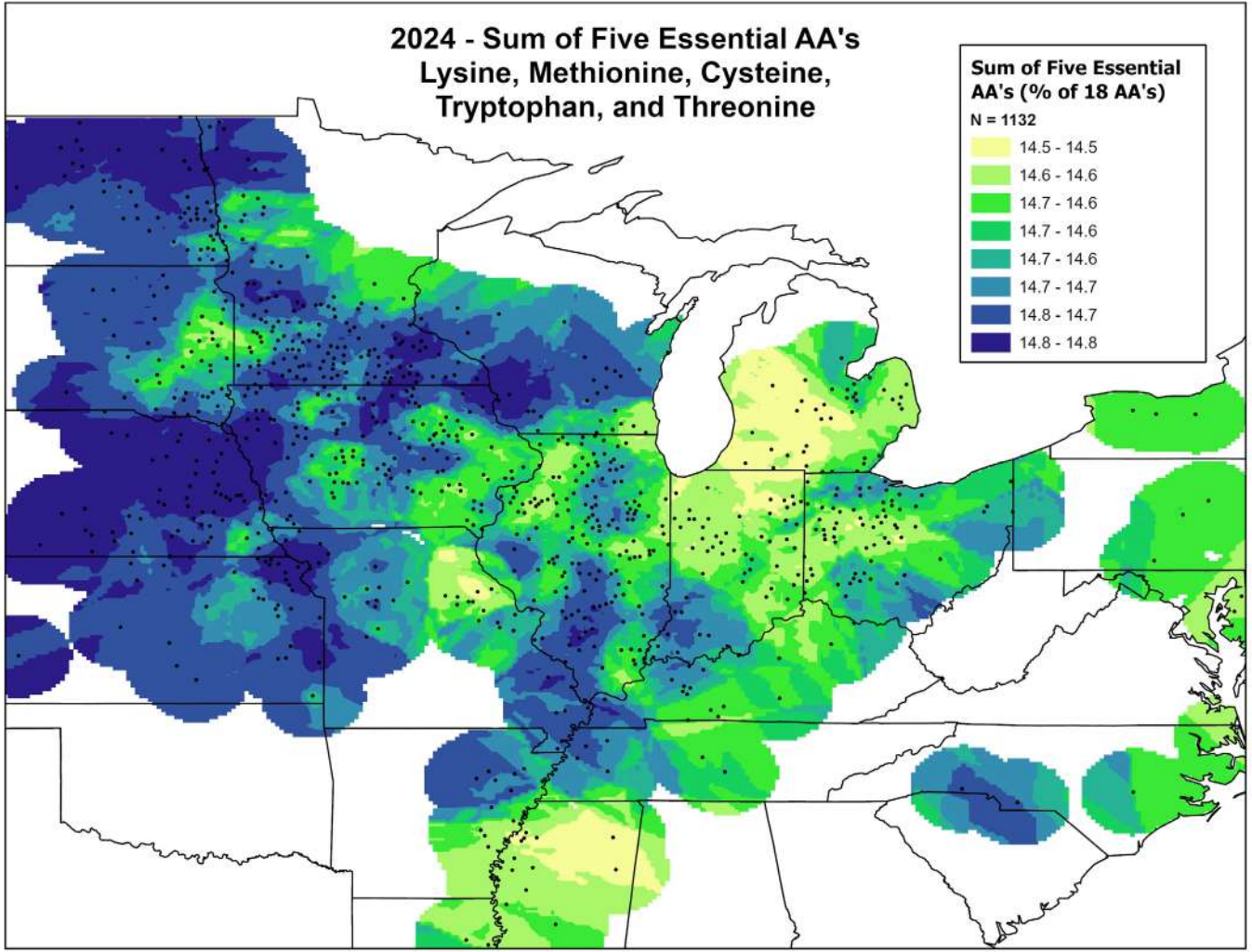


更好的黃豆價值指標

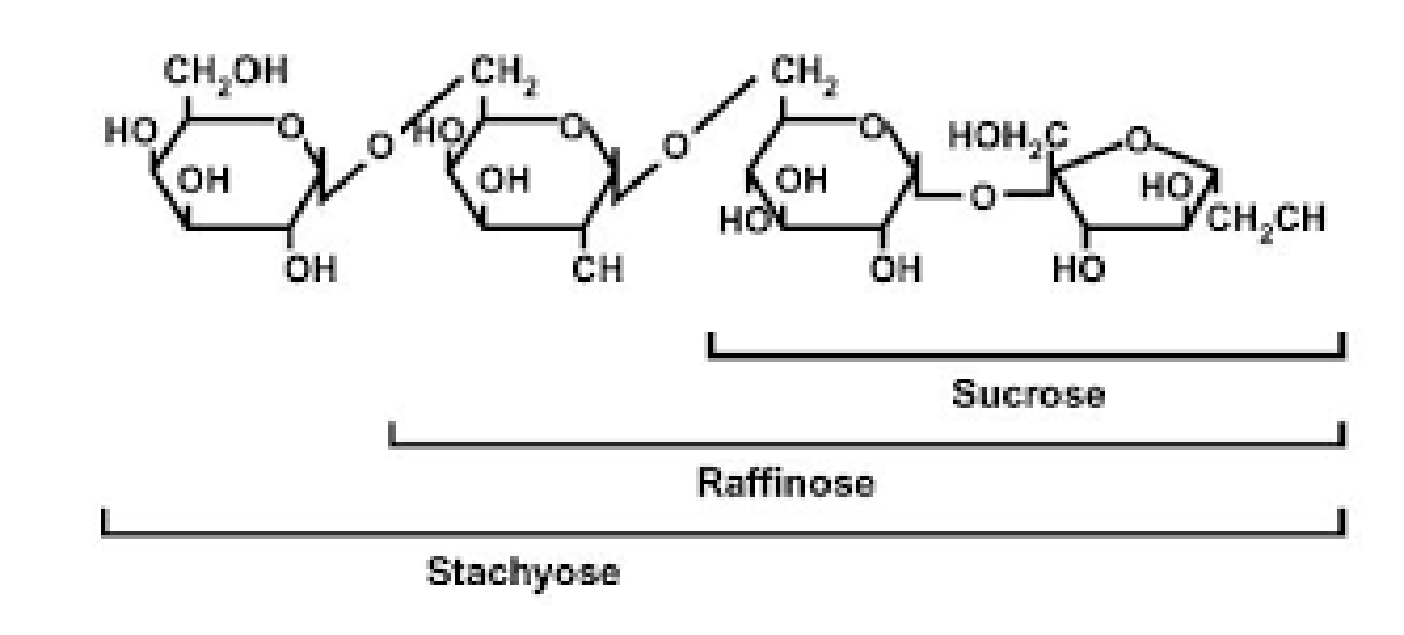
- 黃豆產品/商品複雜、變數多
- 傳統分級制度無法呈現實際價值
- 過去估計黃豆和豆粕的價值，主要根據蛋白質的間接指標：「粗蛋白質」
- 粗蛋白質並非衡量黃豆（或豆粕）價值的最佳指標
- 能夠先發現隱藏價值的買家，將獲得額外利潤

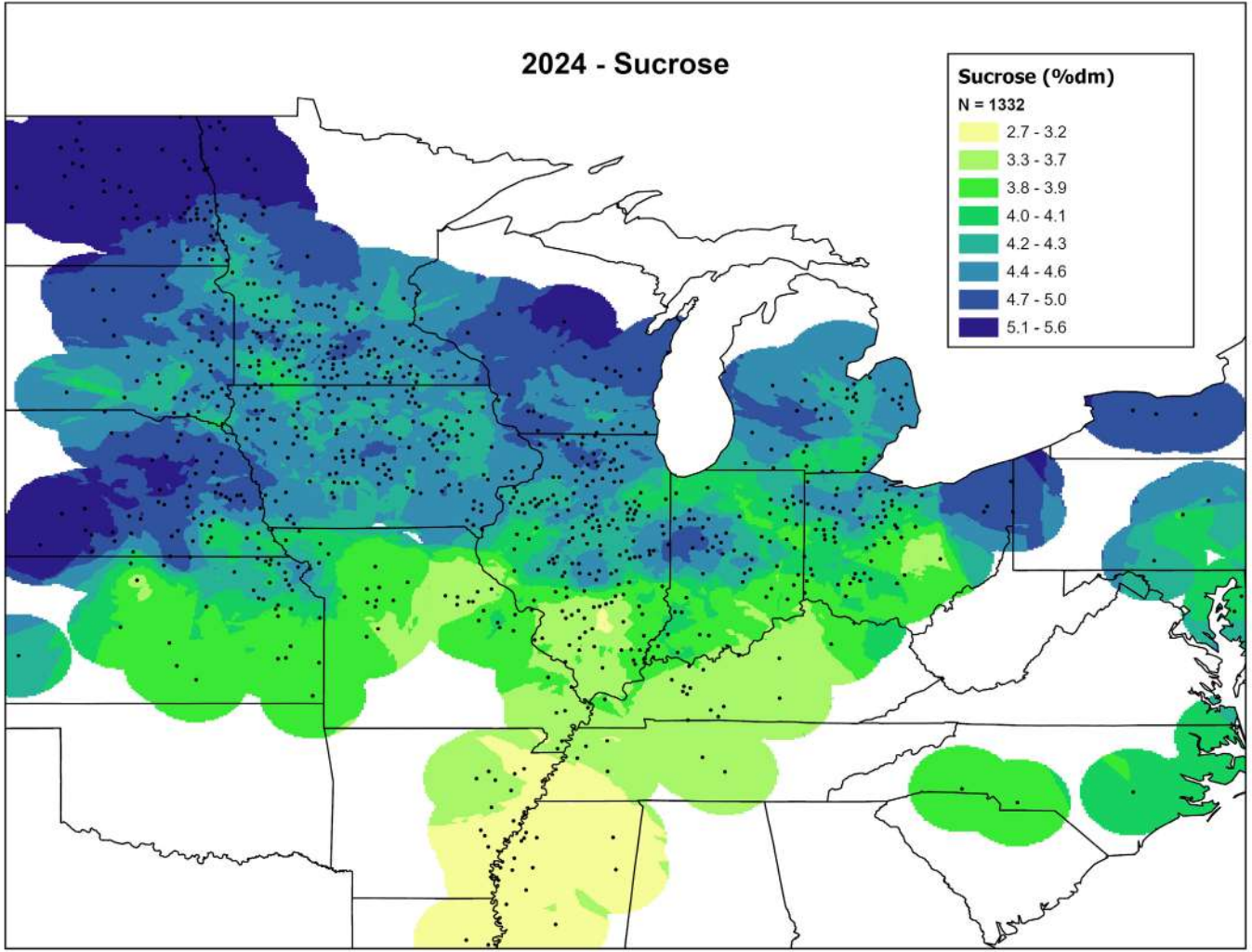
粗蛋白 (氮) 是品質的間接指標




2024 - Sum of Five Essential AA's
Lysine, Methionine, Cysteine,
Tryptophan, and Threonine
Sum of Five Essential AA's (% of 18 AA's)
N = 1132
14.5 - 14.5
14.6 - 14.6
14.7 - 14.6
14.7 - 14.6
14.7 - 14.6
14.7 - 14.7
14.8 - 14.7
14.8 - 14.8

更好的品質衡量標準:可溶性醣類




2024 - Sucrose
Sucrose (%dm)
N = 1332
2.7 - 3.2
3.3 - 3.7
3.8 - 3.9
4.0 - 4.1
4.2 - 4.3
4.4 - 4.6
4.7 - 5.0
5.1 - 5.6

總結

- 生長季節初期降雨過多，隨後出現乾旱，影響黃豆單位產量與品質。
- 2024 年作物的蛋白質、油脂含量都很高，是貨真價實的「油料作物」。
- 秋季乾燥，因此美國黃豆收成期間非常乾燥。
  - 2024 年根據實際含水量計算的蛋白質和油脂含量極高。
  - 今年的黃豆可為加工商帶來高豆粕與高黃豆油雙高產量。

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