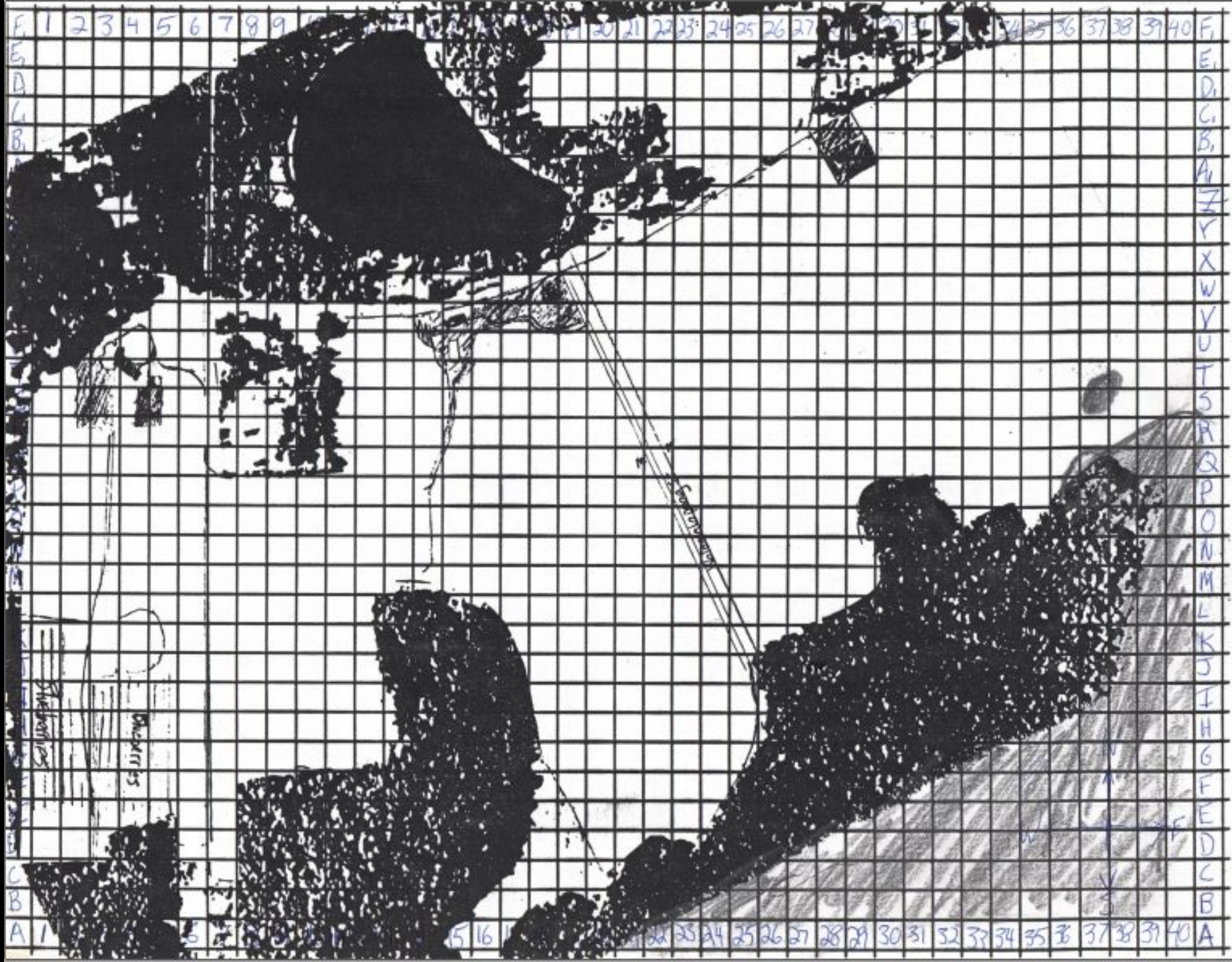


Reduced Tillage Cucurbit Production:

Great positive effects on soil health and fruit quality, but what are the stumbling blocks?



E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 E
 D
 C
 B
 A
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
 A
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 V
 W
 X
 Y
 Z

Depleted organic matter
resulting in reduced
yields & challenging
seasons

www.spectrumanalytic.com

| Sample Number | Lab Number | pH | | Organic Matter % | Phosphorus P | Potassium K |
|---------------|------------|---------|-----------|------------------|--------------|-------------|
| | | Soil pH | Buffer pH | | | |
| V-22 | D27891 | 7.5 | | 2.5 | 433 V | 655 |
| N-27 | D27892 | 6.9 | 7.0 | 2.2 | 374 V | 250 |
| D-24 | D27893 | 6.6 | 6.8 | 2.2 | 755 V | 200 |
| C-39 | D27894 | 6.5 | 6.8 | 2.9 | 211 H | 80 |
| F-21 | D27895 | 6.7 | 6.8 | 1.6 | 404 V | 180 |
| S-32 | D27896 | 7.2 | | 1.5 | 450 V | 83 |
| R-16 | D27897 | 7.6 | | 1.8 | 363 V | 340 |
| L-22 | D27898 | 7.5 | | 1.4 | 367 V | 79 |
| O-1 | D27899 | 7.1 | | 2.7 | 460 V | 57 |
| P-5 | D27900 | 7.1 | | 2.0 | 215 V | 30 |

Soil Sample result from 2004

Optional Equipment modifications to enable no-till planting



Fluted Coultter



Lever Handle Cast Iron closing wheels



Heavy Duty Down-Pressure Spring

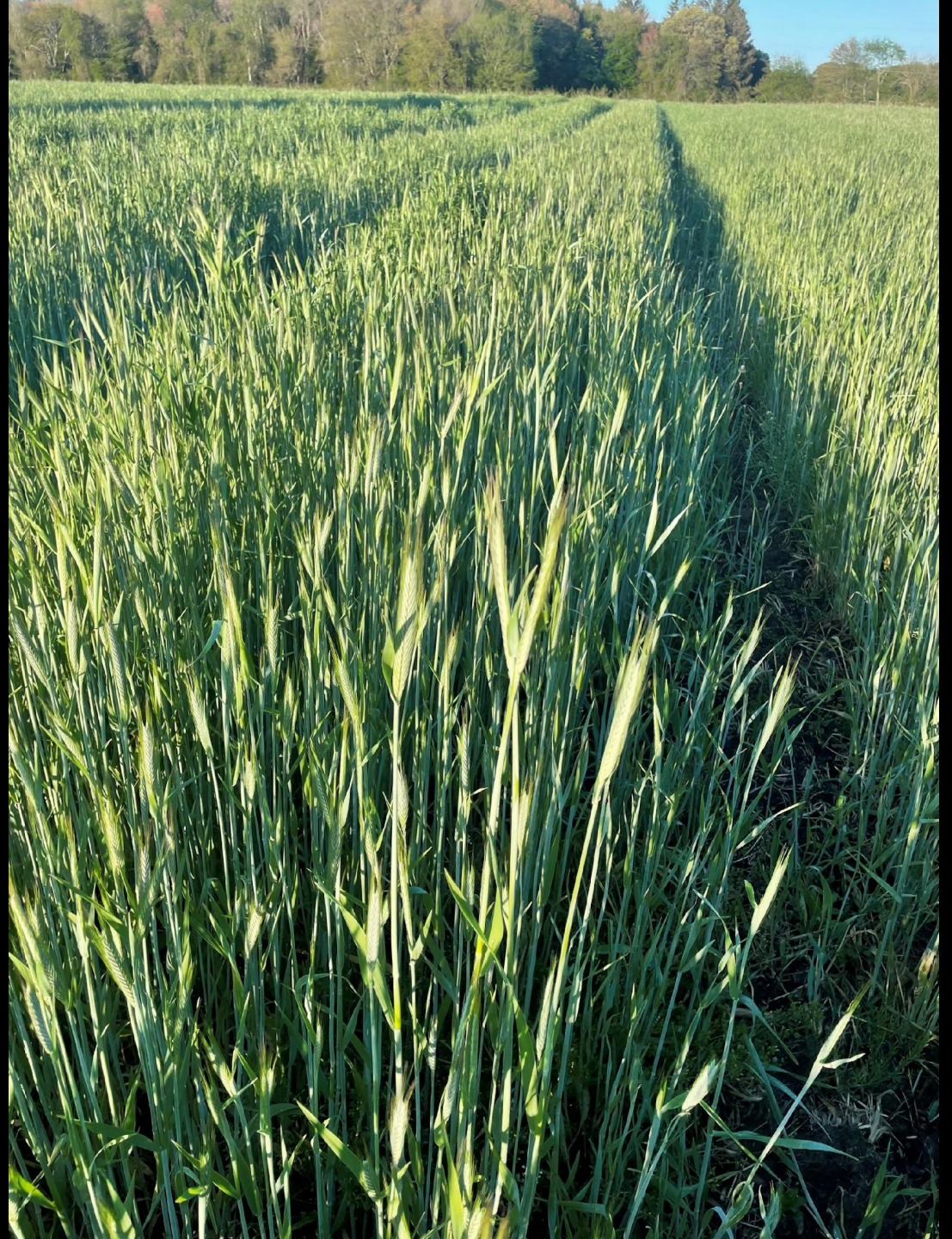


A few things we learned

- It was best to avoid early plantings
- We needed heavier packing wheels
- Hairy Vetch can be very challenging to plant through
- Nutrition management was more forgiving
- No-till fields handled drought better than bare-ground

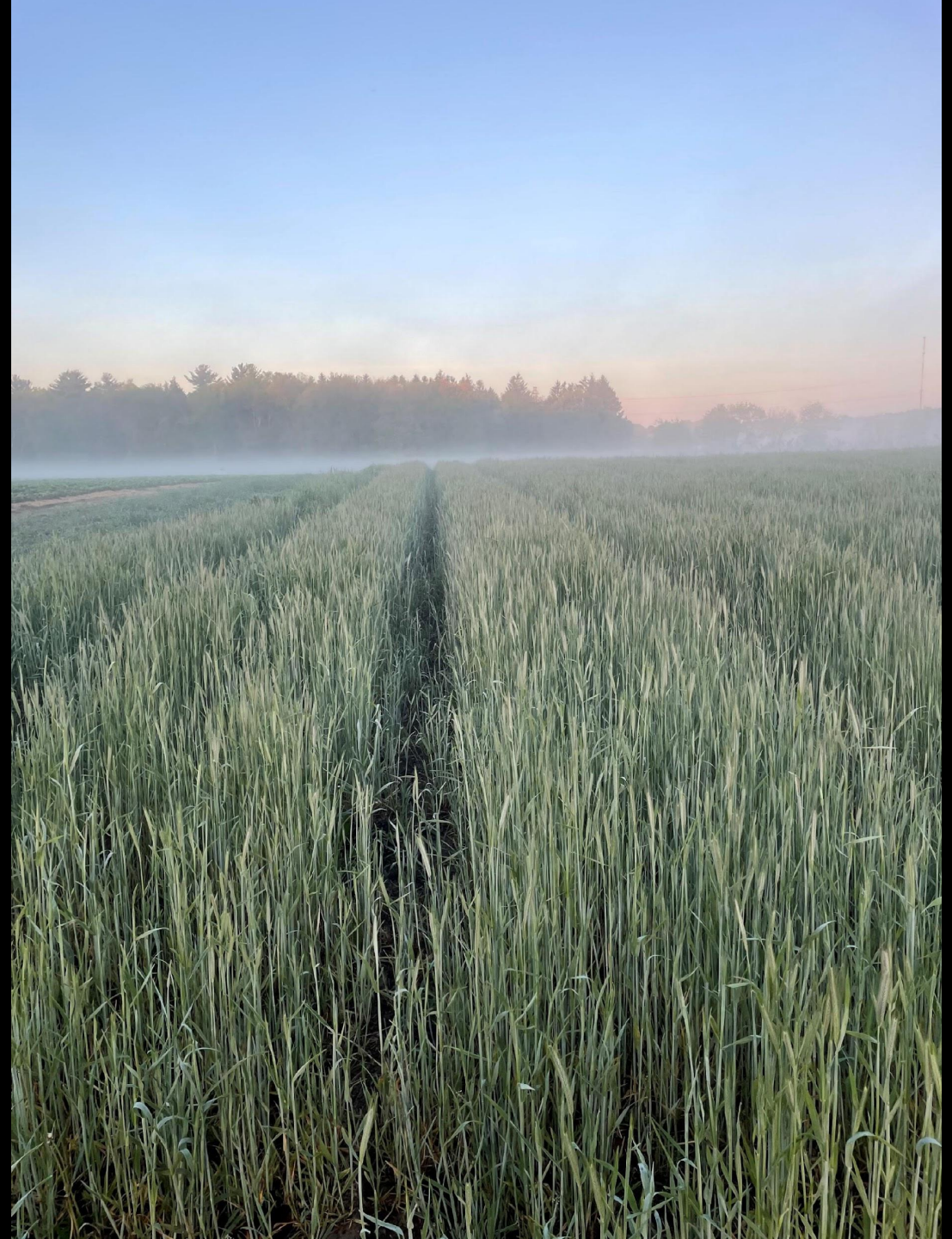
Unverferth Zone Tiller































Here you can see we've built our organic matter levels up quite a bit utilizing our zone till methods and generous compost application

