

# Conversions of parts per million on soil test reports to pounds per acre <sup>1</sup>

Guodong Liu, Yuncong Li, and Aparna Gazula<sup>2</sup>

Soil testing and the resulting fertilization recommendations are critical for appropriate nutrient management in commercial vegetable production. It is just as critical that test results and fertilization recommendations are understood by growers. UF/IFAS soil test reports use parts per million (ppm) to report soil-extractable plant nutrients. The UF/IFAS fertilizer recommendations use pounds of nutrient per acre. Growers also operate with pounds of a particular nutrient per acre to apply fertilizers. If growers don't understand the soil test reports and fertilization recommendations, however, they may over-fertilize crops. One way to avoid miscommunication is to remember that growers and soil experts sometimes speak different languages.

Nutrients in soil can be classified in several ways (water-soluble nutrients, extractable nutrients, etc.). For fertilization recommendations, soil labs usually use the term, *extractable nutrients*. The level of extractable nutrients in a soil sample is determined by the extractant used. This means that when we talk about soil nutrient contents, we need to know what extractant was used to obtain the sample because different extractants can give totally different values even for the same soil sample. For example, using a particular extractant (e.g. Mehlich-I) to extract a soil sample can obtain a value of a specific nutrient such as phosphorus, e.g., 50 ppm. This value means that the tested soil contains 50 mg of Mehlich-I-extractable phosphorus per kg of soil. The phosphorus level of a particular soil sample will be greater if the extractant Mehlich-I was used than the phosphorus level in the

same sample if the extractant Mehlich-III, Bray-1, or Olsen was used. If no extractant is listed on the soil test report, the reported phosphorus level will be relatively meaningless.

The terms *extractant* and *extractable phosphorus* are commonly used and understood in soil labs, but may not be understood as well by growers. To avoid misunderstandings and over- or under-fertilization, we must understand what relationship exists between the numbers of soil test reports, fertilization recommendations, and fertilization practices. How can we compare these numbers? The conversion from parts per million of soil-extractable nutrients on a soil test report to pounds per acre will be helpful for producers. The conversion can, in turn, help to (1) better understand how much extractable nutrient is in the soil; (2) optimize fertilization practices based on these reports; and (3) minimize over-fertilization through optimization of fertilization.

If our soils contain very high levels of phosphorus and calcium but phosphate fertilizers and gypsum are still applied every year, what will happen? The answer is that these applications do not only waste nonrenewable resources but also produce phosphate rock in the fertilized field, particularly when soil pH is greater than 6.5. For example, applying 100 to 120 lb P<sub>2</sub>O<sub>5</sub> per acre is not only unnecessary but also harmful to the environment if a calibrated soil test shows a very high level (e.g., 550 ppm) of phosphorus existing in the soil. Similarly, 1000 lb gypsum (233 lb calcium) per acre every year should not be applied if the soil test shows

1. This document is HS1229, one of a series of the Horticultural Sciences Department, UF/IFAS Extension. Original publication date August 2013. Visit the EDIS website at <http://edis.ifas.ufl.edu>.
2. Guodong Liu, assistant professor, Horticultural Sciences Department, UF/IFAS, 1253 Fifield Hall, Gainesville, FL 32611; Yuncong Li, professor, Soil and Water Science Department, Tropical Research and Education Center, UF/IFAS, 18905 SW 280th Street, Homestead, FL 33031; Aparna Gazula, UF/IFAS Alachua County Extension, 2800 NW 39 Ave, Gainesville, FL 32609.

a very high level of calcium (e.g., 1550 ppm). This article provides a simple conversion method for crop consultants, crop advisors, growers, students, and researchers who are interested in nutrient and water management of crop production.

## How to convert parts per million to pounds per acre

If we assume the plow layer or root zone depth is 6 inches, the total weight of soils in the plow layer can be calculated as:

$$\begin{aligned} \text{Soil weight per acre} &= \text{volume} \times \text{bulk density} \\ &= (43560 \text{ ft}^2/\text{acre} \times 0.5 \text{ ft}) \times 92 \text{ lb/ft}^3 \approx 2,000,000 \text{ lb/acre} \end{aligned}$$

Because UF/IFAS soil test reports report extractable nutrients in parts per million, we can readily use a factor of 2 to convert the actual number of ppm to pounds of a particular extractable nutrient per acre. In the above example, the extractable concentrations were reported as 550 ppm of phosphorus and 1550 ppm of calcium. These numbers mean that soil has 1100 pounds of extractable phosphorus per acre and 3100 pounds of calcium per acre. Further, in fertilization of phosphorus and potassium, their oxides are used. Therefore, the pounds of extractable phosphorus pentoxide ( $\text{P}_2\text{O}_5$ ) and potassium oxide ( $\text{K}_2\text{O}$ ) need to be calculated by additional conversion factors of 2.2913 and 1.2046 for phosphorus and potassium, respectively. The soil in the above example has 550 ppm phosphorus and hence contains 2520 pounds of extractable phosphorus pentoxide per acre. The conversion equations are below. More conversions are available in Table 1.

Extractable nutrient (ppm)  $\times$  2 = pounds of the extractable nutrient per acre

Extractable phosphorus (ppm)  $\times$  2  $\times$  2.2913 = pounds of the extractable phosphorus pentoxide per acre

Extractable potassium (ppm)  $\times$  2  $\times$  1.2046 = pounds of the extractable potassium oxide per acre

Of course, the amount extracted by the soil test is not directly equivalent to fertilizer grade nutrients, and the soil chemistry also influences the plant-available nutrient. Since the soil test is used to predict crop response to added nutrients, at these large soil-test values, we can expect little plant response to application of fertilizers. We must consider other actions and management decisions that can create a confusing and inefficient use of nutrients. The right amount

of phosphorus and gypsum (calcium) from fertilizer can help plants grow, but too much will form rock phosphate and related compounds, none of which nutrient sources are available to plants. You will find more information on this and related issues in forthcoming EDIS documents.

## How to convert pounds per acre to parts per million:

We can easily use a factor of 0.5 to convert the pounds per acre of a nutrient in its elemental form into ppm. To convert 120 pounds per acre to ppm, just multiply 120 pounds per acre by 0.5, which is to equal 60 ppm. This conversion works for all nutrients reported in these units: macronutrients, such as calcium or magnesium, and micronutrients, such as iron, manganese, zinc, and copper. Again, another factor is needed when converting pounds per acre of phosphorus and potassium in their oxide forms into number of ppm in their elemental forms: 0.4364 and 0.8302, respectively. For example, to convert 100 pounds per acre of phosphate fertilizer ( $\text{P}_2\text{O}_5$ ) to ppm of elemental phosphorus, just multiply 100 by 0.5 and then by 0.4364 to get 21.8 ppm of phosphorus. Similarly, 100 pounds per acre of potash fertilizer ( $\text{K}_2\text{O}$ ) will increase soil potassium (K) by 41.5 ppm. The conversion equations are below. More conversions are available in Table 2.

Pounds of nutrient applied per acre  $\times$  0.5 = increment of the nutrient in soil (ppm)

Pounds of phosphorus pentoxide applied per acre  $\times$  0.5  $\times$  0.4364 = increment of phosphorus in soil (ppm)

Pounds of potassium oxide applied per acre  $\times$  0.5  $\times$  0.8302 = increment of potassium in soil (ppm)

Table 1. Conversion from ppm on soil test report to pounds per acre for fertilization practices

| Soil test<br>PPM | Pounds per acre |                               |     |                  |                 |
|------------------|-----------------|-------------------------------|-----|------------------|-----------------|
|                  | P               | P <sub>2</sub> O <sub>5</sub> | K   | K <sub>2</sub> O | Other nutrients |
| 5                | 10              | 22.9                          | 10  | 12.0             | 10              |
| 10               | 20              | 45.8                          | 20  | 24.1             | 20              |
| 15               | 30              | 68.7                          | 30  | 36.1             | 30              |
| 20               | 40              | 91.7                          | 40  | 48.2             | 40              |
| 25               | 50              | 114.6                         | 50  | 60.2             | 50              |
| 30               | 60              | 137.5                         | 60  | 72.3             | 60              |
| 35               | 70              | 160.4                         | 70  | 84.3             | 70              |
| 40               | 80              | 183.3                         | 80  | 96.4             | 80              |
| 45               | 90              | 206.2                         | 90  | 108.4            | 90              |
| 50               | 100             | 229.1                         | 100 | 120.5            | 100             |
| 55               | 110             | 252.0                         | 110 | 132.5            | 110             |
| 60               | 120             | 275.0                         | 120 | 144.6            | 120             |
| 65               | 130             | 297.9                         | 130 | 156.6            | 130             |
| 70               | 140             | 320.8                         | 140 | 168.6            | 140             |
| 75               | 150             | 343.7                         | 150 | 180.7            | 150             |
| 80               | 160             | 366.6                         | 160 | 192.7            | 160             |
| 85               | 170             | 389.5                         | 170 | 204.8            | 170             |
| 90               | 180             | 412.4                         | 180 | 216.8            | 180             |
| 95               | 190             | 435.3                         | 190 | 228.9            | 190             |
| 100              | 200             | 458.3                         | 200 | 240.9            | 200             |
| 105              | 210             | 481.2                         | 210 | 253.0            | 210             |
| 110              | 220             | 504.1                         | 220 | 265.0            | 220             |
| 115              | 230             | 527.0                         | 230 | 277.1            | 230             |
| 120              | 240             | 549.9                         | 240 | 289.1            | 240             |
| 125              | 250             | 572.8                         | 250 | 301.2            | 250             |
| 130              | 260             | 595.7                         | 260 | 313.2            | 260             |
| 135              | 270             | 618.7                         | 270 | 325.2            | 270             |
| 140              | 280             | 641.6                         | 280 | 337.3            | 280             |
| 145              | 290             | 664.5                         | 290 | 349.3            | 290             |
| 150              | 300             | 687.4                         | 300 | 361.4            | 300             |
| 155              | 310             | 710.3                         | 310 | 373.4            | 310             |
| 160              | 320             | 733.2                         | 320 | 385.5            | 320             |
| 165              | 330             | 756.1                         | 330 | 397.5            | 330             |
| 170              | 340             | 779.0                         | 340 | 409.6            | 340             |
| 175              | 350             | 802.0                         | 350 | 421.6            | 350             |
| 180              | 360             | 824.9                         | 360 | 433.7            | 360             |
| 185              | 370             | 847.8                         | 370 | 445.7            | 370             |
| 190              | 380             | 870.7                         | 380 | 457.7            | 380             |
| 195              | 390             | 893.6                         | 390 | 469.8            | 390             |
| 200              | 400             | 916.5                         | 400 | 481.8            | 400             |
| 250              | 500             | 1145.7                        | 500 | 602.3            | 500             |
| 300              | 600             | 1374.8                        | 600 | 722.8            | 600             |
| 350              | 700             | 1603.9                        | 700 | 843.2            | 700             |
| 400              | 800             | 1833.0                        | 800 | 963.7            | 800             |

|      |      |        |      |        |      |
|------|------|--------|------|--------|------|
| 450  | 900  | 2062.2 | 900  | 1084.1 | 900  |
| 500  | 1000 | 2291.3 | 1000 | 1204.6 | 1000 |
| 600  | 1200 | 2749.6 | 1200 | 1445.5 | 1200 |
| 700  | 1400 | 3207.8 | 1400 | 1686.4 | 1400 |
| 800  | 1600 | 3666.1 | 1600 | 1927.4 | 1600 |
| 900  | 1800 | 4124.3 | 1800 | 2168.3 | 1800 |
| 1000 | 2000 | 4582.6 | 2000 | 2409.2 | 2000 |

Footnote: phosphorus pentoxide ( $P_2O_5$ ) contains 43.64% of phosphorus; potassium oxide ( $K_2O$ ) contains 83.02% potassium.

Table 2. Conversion from pounds per acre for fertilization practices to ppm on soil test reports

| Soil test<br>Pounds/acre | PPM  |                               |      |                  |                 |
|--------------------------|------|-------------------------------|------|------------------|-----------------|
|                          | P    | P <sub>2</sub> O <sub>5</sub> | K    | K <sub>2</sub> O | Other nutrients |
| 1                        | 0.5  | 1.1                           | 0.5  | 0.6              | 0.5             |
| 2                        | 1.0  | 2.3                           | 1.0  | 1.2              | 1.0             |
| 3                        | 1.5  | 3.4                           | 1.5  | 1.8              | 1.5             |
| 4                        | 2.0  | 4.6                           | 2.0  | 2.4              | 2.0             |
| 5                        | 2.5  | 5.7                           | 2.5  | 3.0              | 2.5             |
| 6                        | 3.0  | 6.9                           | 3.0  | 3.6              | 3.0             |
| 7                        | 3.5  | 8.0                           | 3.5  | 4.2              | 3.5             |
| 8                        | 4.0  | 9.2                           | 4.0  | 4.8              | 4.0             |
| 9                        | 4.5  | 10.3                          | 4.5  | 5.4              | 4.5             |
| 10                       | 5.0  | 11.5                          | 5.0  | 6.0              | 5.0             |
| 11                       | 5.5  | 12.6                          | 5.5  | 6.6              | 5.5             |
| 12                       | 6.0  | 13.7                          | 6.0  | 7.2              | 6.0             |
| 13                       | 6.5  | 14.9                          | 6.5  | 7.8              | 6.5             |
| 14                       | 7.0  | 16.0                          | 7.0  | 8.4              | 7.0             |
| 15                       | 7.5  | 17.2                          | 7.5  | 9.0              | 7.5             |
| 16                       | 8.0  | 18.3                          | 8.0  | 9.6              | 8.0             |
| 17                       | 8.5  | 19.5                          | 8.5  | 10.2             | 8.5             |
| 18                       | 9.0  | 20.6                          | 9.0  | 10.8             | 9.0             |
| 19                       | 9.5  | 21.8                          | 9.5  | 11.4             | 9.5             |
| 20                       | 10.0 | 22.9                          | 10.0 | 12.0             | 10.0            |
| 21                       | 10.5 | 24.1                          | 10.5 | 12.6             | 10.5            |
| 22                       | 11.0 | 25.2                          | 11.0 | 13.2             | 11.0            |
| 23                       | 11.5 | 26.4                          | 11.5 | 13.9             | 11.5            |
| 24                       | 12.0 | 27.5                          | 12.0 | 14.5             | 12.0            |
| 25                       | 12.5 | 28.6                          | 12.5 | 15.1             | 12.5            |
| 26                       | 13.0 | 29.8                          | 13.0 | 15.7             | 13.0            |
| 27                       | 13.5 | 30.9                          | 13.5 | 16.3             | 13.5            |
| 28                       | 14.0 | 32.1                          | 14.0 | 16.9             | 14.0            |
| 29                       | 14.5 | 33.2                          | 14.5 | 17.5             | 14.5            |
| 30                       | 15.0 | 34.4                          | 15.0 | 18.1             | 15.0            |
| 31                       | 15.5 | 35.5                          | 15.5 | 18.7             | 15.5            |
| 32                       | 16.0 | 36.7                          | 16.0 | 19.3             | 16.0            |
| 33                       | 16.5 | 37.8                          | 16.5 | 19.9             | 16.5            |
| 34                       | 17.0 | 39.0                          | 17.0 | 20.5             | 17.0            |
| 35                       | 17.5 | 40.1                          | 17.5 | 21.1             | 17.5            |
| 36                       | 18.0 | 41.2                          | 18.0 | 21.7             | 18.0            |
| 37                       | 18.5 | 42.4                          | 18.5 | 22.3             | 18.5            |
| 38                       | 19.0 | 43.5                          | 19.0 | 22.9             | 19.0            |
| 39                       | 19.5 | 44.7                          | 19.5 | 23.5             | 19.5            |
| 40                       | 20.0 | 45.8                          | 20.0 | 24.1             | 20.0            |
| 41                       | 20.5 | 47.0                          | 20.5 | 24.7             | 20.5            |
| 42                       | 21.0 | 48.1                          | 21.0 | 25.3             | 21.0            |
| 43                       | 21.5 | 49.3                          | 21.5 | 25.9             | 21.5            |
| 44                       | 22.0 | 50.4                          | 22.0 | 26.5             | 22.0            |

|    |      |       |      |      |      |
|----|------|-------|------|------|------|
| 45 | 22.5 | 51.6  | 22.5 | 27.1 | 22.5 |
| 46 | 23.0 | 52.7  | 23.0 | 27.7 | 23.0 |
| 47 | 23.5 | 53.8  | 23.5 | 28.3 | 23.5 |
| 48 | 24.0 | 55.0  | 24.0 | 28.9 | 24.0 |
| 49 | 24.5 | 56.1  | 24.5 | 29.5 | 24.5 |
| 50 | 25.0 | 57.3  | 25.0 | 30.1 | 25.0 |
| 51 | 25.5 | 58.4  | 25.5 | 30.7 | 25.5 |
| 52 | 26.0 | 59.6  | 26.0 | 31.3 | 26.0 |
| 53 | 26.5 | 60.7  | 26.5 | 31.9 | 26.5 |
| 54 | 27.0 | 61.9  | 27.0 | 32.5 | 27.0 |
| 55 | 27.5 | 63.0  | 27.5 | 33.1 | 27.5 |
| 56 | 28.0 | 64.2  | 28.0 | 33.7 | 28.0 |
| 57 | 28.5 | 65.3  | 28.5 | 34.3 | 28.5 |
| 58 | 29.0 | 66.5  | 29.0 | 34.9 | 29.0 |
| 59 | 29.5 | 67.6  | 29.5 | 35.5 | 29.5 |
| 60 | 30.0 | 68.7  | 30.0 | 36.1 | 30.0 |
| 61 | 30.5 | 69.9  | 30.5 | 36.7 | 30.5 |
| 62 | 31.0 | 71.0  | 31.0 | 37.3 | 31.0 |
| 63 | 31.5 | 72.2  | 31.5 | 37.9 | 31.5 |
| 64 | 32.0 | 73.3  | 32.0 | 38.5 | 32.0 |
| 65 | 32.5 | 74.5  | 32.5 | 39.1 | 32.5 |
| 66 | 33.0 | 75.6  | 33.0 | 39.7 | 33.0 |
| 67 | 33.5 | 76.8  | 33.5 | 40.4 | 33.5 |
| 68 | 34.0 | 77.9  | 34.0 | 41.0 | 34.0 |
| 69 | 34.5 | 79.1  | 34.5 | 41.6 | 34.5 |
| 70 | 35.0 | 80.2  | 35.0 | 42.2 | 35.0 |
| 71 | 35.5 | 81.3  | 35.5 | 42.8 | 35.5 |
| 72 | 36.0 | 82.5  | 36.0 | 43.4 | 36.0 |
| 73 | 36.5 | 83.6  | 36.5 | 44.0 | 36.5 |
| 74 | 37.0 | 84.8  | 37.0 | 44.6 | 37.0 |
| 75 | 37.5 | 85.9  | 37.5 | 45.2 | 37.5 |
| 76 | 38.0 | 87.1  | 38.0 | 45.8 | 38.0 |
| 77 | 38.5 | 88.2  | 38.5 | 46.4 | 38.5 |
| 78 | 39.0 | 89.4  | 39.0 | 47.0 | 39.0 |
| 79 | 39.5 | 90.5  | 39.5 | 47.6 | 39.5 |
| 80 | 40.0 | 91.7  | 40.0 | 48.2 | 40.0 |
| 81 | 40.5 | 92.8  | 40.5 | 48.8 | 40.5 |
| 82 | 41.0 | 94.0  | 41.0 | 49.4 | 41.0 |
| 83 | 41.5 | 95.1  | 41.5 | 50.0 | 41.5 |
| 84 | 42.0 | 96.2  | 42.0 | 50.6 | 42.0 |
| 85 | 42.5 | 97.4  | 42.5 | 51.2 | 42.5 |
| 86 | 43.0 | 98.5  | 43.0 | 51.8 | 43.0 |
| 87 | 43.5 | 99.7  | 43.5 | 52.4 | 43.5 |
| 88 | 44.0 | 100.8 | 44.0 | 53.0 | 44.0 |
| 89 | 44.5 | 102.0 | 44.5 | 53.6 | 44.5 |
| 90 | 45.0 | 103.1 | 45.0 | 54.2 | 45.0 |

|     |      |       |      |      |      |
|-----|------|-------|------|------|------|
| 91  | 45.5 | 104.3 | 45.5 | 54.8 | 45.5 |
| 92  | 46.0 | 105.4 | 46.0 | 55.4 | 46.0 |
| 93  | 46.5 | 106.6 | 46.5 | 56.0 | 46.5 |
| 94  | 47.0 | 107.7 | 47.0 | 56.6 | 47.0 |
| 95  | 47.5 | 108.8 | 47.5 | 57.2 | 47.5 |
| 96  | 48.0 | 110.0 | 48.0 | 57.8 | 48.0 |
| 97  | 48.5 | 111.1 | 48.5 | 58.4 | 48.5 |
| 98  | 49.0 | 112.3 | 49.0 | 59.0 | 49.0 |
| 99  | 49.5 | 113.4 | 49.5 | 59.6 | 49.5 |
| 100 | 50.0 | 114.6 | 50.0 | 60.2 | 50.0 |
| 101 | 50.5 | 115.7 | 50.5 | 60.8 | 50.5 |
| 102 | 51.0 | 116.9 | 51.0 | 61.4 | 51.0 |
| 103 | 51.5 | 118.0 | 51.5 | 62.0 | 51.5 |
| 104 | 52.0 | 119.2 | 52.0 | 62.6 | 52.0 |
| 105 | 52.5 | 120.3 | 52.5 | 63.2 | 52.5 |
| 106 | 53.0 | 121.4 | 53.0 | 63.8 | 53.0 |
| 107 | 53.5 | 122.6 | 53.5 | 64.4 | 53.5 |
| 108 | 54.0 | 123.7 | 54.0 | 65.0 | 54.0 |
| 109 | 54.5 | 124.9 | 54.5 | 65.6 | 54.5 |
| 110 | 55.0 | 126.0 | 55.0 | 66.2 | 55.0 |
| 111 | 55.5 | 127.2 | 55.5 | 66.9 | 55.5 |
| 112 | 56.0 | 128.3 | 56.0 | 67.5 | 56.0 |
| 113 | 56.5 | 129.5 | 56.5 | 68.1 | 56.5 |
| 114 | 57.0 | 130.6 | 57.0 | 68.7 | 57.0 |
| 115 | 57.5 | 131.8 | 57.5 | 69.3 | 57.5 |
| 116 | 58.0 | 132.9 | 58.0 | 69.9 | 58.0 |
| 117 | 58.5 | 134.1 | 58.5 | 70.5 | 58.5 |
| 118 | 59.0 | 135.2 | 59.0 | 71.1 | 59.0 |
| 119 | 59.5 | 136.3 | 59.5 | 71.7 | 59.5 |
| 120 | 60.0 | 137.5 | 60.0 | 72.3 | 60.0 |
| 121 | 60.5 | 138.6 | 60.5 | 72.9 | 60.5 |
| 122 | 61.0 | 139.8 | 61.0 | 73.5 | 61.0 |
| 123 | 61.5 | 140.9 | 61.5 | 74.1 | 61.5 |
| 124 | 62.0 | 142.1 | 62.0 | 74.7 | 62.0 |
| 125 | 62.5 | 143.2 | 62.5 | 75.3 | 62.5 |
| 126 | 63.0 | 144.4 | 63.0 | 75.9 | 63.0 |
| 127 | 63.5 | 145.5 | 63.5 | 76.5 | 63.5 |
| 128 | 64.0 | 146.7 | 64.0 | 77.1 | 64.0 |
| 129 | 64.5 | 147.8 | 64.5 | 77.7 | 64.5 |
| 130 | 65.0 | 148.9 | 65.0 | 78.3 | 65.0 |
| 131 | 65.5 | 150.1 | 65.5 | 78.9 | 65.5 |
| 132 | 66.0 | 151.2 | 66.0 | 79.5 | 66.0 |
| 133 | 66.5 | 152.4 | 66.5 | 80.1 | 66.5 |
| 134 | 67.0 | 153.5 | 67.0 | 80.7 | 67.0 |
| 135 | 67.5 | 154.7 | 67.5 | 81.3 | 67.5 |
| 136 | 68.0 | 155.8 | 68.0 | 81.9 | 68.0 |

|     |      |       |      |      |      |
|-----|------|-------|------|------|------|
| 137 | 68.5 | 157.0 | 68.5 | 82.5 | 68.5 |
| 138 | 69.0 | 158.1 | 69.0 | 83.1 | 69.0 |
| 139 | 69.5 | 159.3 | 69.5 | 83.7 | 69.5 |
| 140 | 70.0 | 160.4 | 70.0 | 84.3 | 70.0 |
| 141 | 70.5 | 161.5 | 70.5 | 84.9 | 70.5 |
| 142 | 71.0 | 162.7 | 71.0 | 85.5 | 71.0 |
| 143 | 71.5 | 163.8 | 71.5 | 86.1 | 71.5 |
| 144 | 72.0 | 165.0 | 72.0 | 86.7 | 72.0 |
| 145 | 72.5 | 166.1 | 72.5 | 87.3 | 72.5 |
| 146 | 73.0 | 167.3 | 73.0 | 87.9 | 73.0 |
| 147 | 73.5 | 168.4 | 73.5 | 88.5 | 73.5 |
| 148 | 74.0 | 169.6 | 74.0 | 89.1 | 74.0 |
| 149 | 74.5 | 170.7 | 74.5 | 89.7 | 74.5 |
| 150 | 75.0 | 171.9 | 75.0 | 90.3 | 75.0 |