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CORRESPONDENCE

On the Presence of 1,3-Dioxolanes in Commercial Flavorings

Sir: Several papers on the presence of 1,3-dioxolanes/propylene glycol acetals in commercial flavorings have appeared in this journal over the past several issues. MacLeod et al. (1980) described these compounds in commercial beef flavorings. Welch and Hunter (1980) did not state the type of flavoring used in their analysis but did claim to report the "mass spectra of the acetals of the more common flavoring aldehydes ... for the first time".

In the interest of completeness and information for interested readers, I would like to point out our earlier paper, Heydanek and Min (1976), in which this same problem was described. Our findings are now substantiated by the two papers mentioned above and also contain additional mass spectral data on propylene glycol acetals of common flavoring aldehydes. Since our paper was not referenced in either of the above publications, it should not be overlooked by researchers in this field. All the investigations

conclude that this acetal formation does take place in commercial flavoring mixtures and is a potential source for nonuniformity in the flavor of manufactured food products.

Literature Cited

- Heydanek, M. G.; Min, D. B. S. *J. Food Sci.* 1976, 41, 145.
 MacLeod, G.; Segyedain-Ardebili, M.; MacLeod, A. J. *J. Agric. Food Chem.* 1980, 28, 441.
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CORRECTIONS

SOLUTION-PHASE PHOTODECOMPOSITION OF SEVERAL SUBSTITUTED DIPHENYL ETHER HERBICIDES, by Luis O. Ruza,* Jae Koo Lee, and Matthew J. Zabik, *J. Agric. Food Chem.* 1980, 28, 1289.

On p 1289, the second author's name should be spelled Jae Koo Lee. J.K.L. was supported by the FAO André Mayer Fellowship. His present address is Department of Agricultural Chemistry, College of Agriculture, Chung Buk National University, 310, Cheong Ju, Korea.

SOME EFFECTS OF NITROGEN FERTILIZER ON THE CHEMICAL COMPOSITION OF PEARL MILLET GRAIN, by August V. Bailey,* Biagio Piccolo, Gene Sumrell, and Glenn W. Burton, *J. Agric. Food Chem.* 1980, 28, 866.

A final zero is omitted or the decimal point misplaced on several columns of data in Tables IV and V, p 869. The corrected Tables IV and V are as follows.

Table IV. Mineral Content (ppm) of Pearl Millet at Two Levels of Fertilizer, 1976^a

| sample description | | | | | | | | | | | | | | | |
|--------------------|------------------|-------|------|------|-----------------|-----|-----|-----|-----|----|-----|----|----|----|----|
| sample | fertilizer level | K | P | Ca | Mg | Mo | Pb | Sr | Br | Ti | Cu | Se | Zn | Fe | Mn |
| Tift 18DB | low | 9000 | 4800 | 1050 | 830 | 290 | 370 | 470 | 120 | 15 | 3.8 | 51 | 46 | 48 | 35 |
| | high | 8390 | 6200 | 950 | 940 | 280 | 360 | 480 | 130 | 22 | 3.6 | 43 | 48 | 51 | 30 |
| Tift 23DB | low | 8790 | 4800 | 1190 | 1250 | 410 | 410 | 630 | 160 | 33 | 4.2 | 45 | 49 | 65 | 44 |
| | high | 9850 | 5700 | 990 | 640 | 320 | 370 | 490 | 130 | 8 | 4.2 | 58 | 45 | 29 | 24 |
| Tift 383 | low | 8900 | 5300 | 770 | ND ^b | 260 | 330 | 530 | 140 | 10 | 4.4 | 42 | 46 | 31 | 29 |
| | high | 12300 | 6700 | 1430 | 860 | 130 | 290 | 220 | 100 | 18 | 2.8 | 23 | 46 | 56 | 30 |
| Tift 23DA × 18DB | low | 11800 | 5400 | 1100 | 700 | 160 | 300 | 160 | 70 | 8 | 4.9 | 20 | 45 | 29 | 28 |
| | high | 8330 | 6000 | 750 | 640 | 970 | 270 | 210 | 70 | 5 | 2.3 | ND | 49 | 37 | 35 |
| Tift 23DA × 383 | low | 8780 | 4600 | 780 | 830 | 200 | 360 | 470 | 130 | 5 | 1.9 | 33 | 47 | 47 | 20 |
| | high | 7650 | 5800 | 850 | 810 | 370 | 420 | 610 | 170 | 6 | 6.0 | 58 | 51 | 65 | 41 |
| Tift 23DA × 18DB | low | 7760 | 4600 | 780 | 700 | 270 | 390 | 470 | 140 | 10 | 4.7 | 43 | 49 | 63 | 37 |
| | high | 9080 | 4600 | 830 | 770 | 240 | 360 | 370 | 110 | 6 | 2.4 | 31 | 48 | 30 | 27 |
| Tift 23DA × 383 | low | 8720 | 5300 | 780 | 550 | 150 | 320 | 390 | 120 | 7 | 3.6 | 18 | 45 | 10 | 26 |
| | high | 9800 | 4700 | 900 | 530 | 260 | 360 | 490 | 130 | 6 | 4.9 | 34 | 44 | 37 | 27 |
| Tift 23DA × 383 | low | 10270 | 4500 | 930 | 770 | 280 | 370 | 440 | 130 | 6 | 4.2 | 36 | 46 | 39 | 33 |
| | high | 7700 | 5500 | 740 | 740 | 300 | 390 | 440 | 140 | 6 | 3.8 | 32 | 51 | 46 | 51 |
| Tift 23DA × 383 | low | 8050 | 5100 | 810 | 750 | 190 | 350 | 270 | 100 | ND | 5.4 | 33 | 52 | 35 | 44 |
| | high | 8990 | 3900 | 1080 | 790 | 270 | 360 | 410 | 120 | 6 | 3.3 | 34 | 49 | 50 | 41 |
| | | 7800 | 5500 | 940 | 670 | 280 | 400 | 460 | 130 | 10 | 5.3 | 42 | 49 | 30 | 36 |

^a Dry weight basis; samples from two replicate plots were analyzed. ^b ND = no data.

Table V. Mineral Content (ppm) of Pearl Millet at Two Levels of Fertilizer, 1977^a

| sample description | | | | | | | | | | | | | | | |
|--------------------|------------------|-------|------|------|-----|-----|-----|-----|-----|-----------------|-----|----|----|----|----|
| sample | fertilizer level | K | P | Ca | Mg | Mo | Pb | Sr | Br | Ti | Cu | Se | Zn | Fe | Mn |
| Tift 18DB | low | 10130 | 5200 | 790 | 670 | 170 | 330 | 180 | 80 | 4 | 4.1 | 21 | 43 | 25 | 21 |
| | high | 10300 | 6000 | 760 | 670 | 140 | 310 | 260 | 100 | 2 | 4.6 | 14 | 44 | 22 | 21 |
| Tift 23DB | low | 11600 | 4300 | 1130 | 900 | 290 | 370 | 450 | 130 | 4 | 4.5 | 40 | 47 | 31 | 41 |
| | high | 8790 | 4400 | 820 | 600 | 120 | 300 | 250 | 60 | 5 | 4.5 | 9 | 47 | 36 | 29 |
| Tift 383 | low | 10130 | 6300 | 780 | 490 | 180 | 320 | 170 | 90 | 4 | 4.1 | 18 | 48 | 29 | 48 |
| | high | 10130 | 6300 | 780 | 490 | 170 | 330 | 420 | 110 | ND ^b | 3.9 | 17 | 46 | 25 | 58 |
| Tift 23DA × 18DB | low | 11570 | 6000 | 1380 | 910 | 150 | 290 | 230 | 80 | 3 | 2.0 | 11 | 49 | 31 | 57 |
| | high | 9000 | 5700 | 800 | ND | 230 | 350 | 370 | 110 | 5 | 3.2 | 26 | 43 | 8 | 33 |
| Tift 23DA × 383 | low | 8000 | 5300 | 550 | 200 | 280 | 370 | 360 | 120 | 3 | 5.6 | 40 | 55 | 51 | 39 |
| | high | 7470 | 4200 | 550 | 690 | 690 | 280 | 130 | ND | 5 | 4.2 | ND | 50 | 49 | 33 |
| Tift 23DA × 18DB | low | 7400 | 5000 | 590 | 590 | 630 | 280 | 200 | 60 | 1 | 4.7 | ND | 47 | 41 | 25 |
| | high | 5470 | 4100 | 520 | ND | 150 | 320 | 220 | 80 | 3 | 4.2 | 15 | 52 | 49 | 42 |
| Tift 23DA × 18DB | low | 9100 | 4500 | 740 | 840 | 210 | 390 | 610 | 160 | 3 | 5.3 | 32 | 50 | 47 | 45 |
| | high | 9380 | 4500 | 880 | 820 | 280 | 400 | 530 | 150 | 5 | 5.3 | 42 | 46 | 11 | 31 |
| Tift 23DA × 383 | low | 7070 | 5300 | 630 | ND | 270 | 370 | 450 | 110 | 2 | 4.0 | 37 | 57 | 46 | 39 |
| | high | 8500 | 5200 | 630 | 680 | 280 | 400 | 450 | 140 | 6 | 4.9 | 41 | 49 | 32 | 40 |
| Tift 23DA × 383 | low | 8500 | 5200 | 630 | 680 | 300 | 410 | 520 | 140 | 9 | 5.2 | 46 | 51 | 29 | 34 |
| | high | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | | 7920 | 4800 | 750 | 560 | 200 | 370 | 510 | 90 | ND | 3.8 | 32 | 51 | 46 | 51 |
| | | 7700 | 5500 | 740 | 740 | 230 | 370 | 300 | 110 | 3 | 5.4 | 33 | 52 | 35 | 44 |

^a Dry weight basis; samples from two replicate plots were analyzed. ^b ND = no data.

AMINO ACID PROFILES, CHEMICAL SCORES, AND
MINERAL CONTENTS OF SOME PEARL MILLET
INBRED LINES, by August V. Bailey,* Biagio Piccolo,
Gene Sumrell, and Glenn W. Burton, *J. Agric. Food Chem.*
1979, 27, 142.

A final zero is omitted on several columns of data in
Table II, p 1421. The corrected Table II is as follows.

Table II. Mineral Content of Some Pearl Millet Inbreds

| inbred | element ^a | | | | | | | | | | |
|-----------|----------------------|-----|----|-----------------|------|------|------|------|-----|------|------|
| | Ca | Mg | Fe | Sr | Cu | Zn | Mn | Ti | Br | K | P |
| Tift 2D | 290 | 50 | 30 | 260 | 9.3 | 10.6 | 10.5 | 9.6 | 130 | 5100 | 6400 |
| Tift 5D | 280 | 80 | 20 | nd ^b | 11.3 | 11.4 | 7.2 | 8.4 | 100 | 8600 | 8700 |
| Tift 6D | 340 | 120 | 60 | 190 | 9.2 | 12.0 | 15.5 | 10.9 | 120 | 4700 | 7400 |
| Tift 8D | 280 | 70 | 40 | 600 | 9.2 | 11.4 | 10.3 | 12.9 | 170 | 4700 | 5300 |
| Tift 9D | 210 | 150 | 50 | 540 | 8.6 | 10.5 | 22.0 | 11.4 | 160 | 4900 | 6700 |
| Tift 12 | 220 | 110 | 30 | 150 | 12.3 | 13.1 | 11.2 | 10.0 | 120 | 4500 | 7700 |
| Tift 17 | 250 | 150 | 30 | 430 | 9.9 | 10.6 | 10.8 | 13.1 | 190 | 5100 | 8900 |
| Tift 21 | 310 | 120 | 10 | 550 | 9.0 | 9.9 | 8.3 | 10.9 | 170 | 4800 | 5800 |
| Tift 28 | 280 | 140 | 30 | 710 | 8.7 | 10.6 | 12.4 | 12.8 | 190 | 3700 | 3800 |
| Tift 29 | 170 | 140 | 50 | 640 | 9.5 | 11.1 | 13.5 | 11.4 | 170 | 4100 | 5800 |
| Tift 30 | 210 | 110 | 50 | 480 | 9.0 | 13.7 | 10.9 | 10.0 | 170 | 4300 | 6300 |
| Tift 18DB | 210 | 100 | 30 | 700 | 9.7 | 2.6 | 10.0 | 3.4 | 190 | nd | 4200 |
| Tift 23DB | 220 | 120 | 30 | 700 | 21.0 | 5.3 | 20.0 | 4.2 | 190 | nd | 4600 |
| Tift 383D | 190 | nd | 50 | 340 | 10.1 | 11.4 | 12.0 | 11.6 | 130 | 4500 | 5400 |

^a Microgram per gram, dry basis. ^b Not determined.