

## Supplementary Table

### Correlation data

**Table S1: Correlation matrix for essential plant nutrients in brinjal waste**

| Nutrients | P     | K     | S     | Ca    | Mg    | Zn    | Cu    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |       |
| K         | -.676 | 1.000 |       |       |       |       |       |       |       |       |       |       |
| S         | .234  | -.264 | 1.000 |       |       |       |       |       |       |       |       |       |
| Ca        | -.697 | .542* | -.157 | 1.000 |       |       |       |       |       |       |       |       |
| Mg        | .836* | -.507 | -.335 | -.542 | 1.000 |       |       |       |       |       |       |       |
| Zn        | -.818 | .238  | -.482 | .437  | -.527 | 1.000 |       |       |       |       |       |       |
| Cu        | -.699 | .125  | -.311 | .783* | -.470 | .799* | 1.000 |       |       |       |       |       |
| Fe        | -.884 | .874* | -.470 | .523* | -.602 | .663* | .405  | 1.000 |       |       |       |       |
| Mn        | -.641 | .506* | -.316 | .982* | -.397 | .452  | .800* | .508* | 1.000 |       |       |       |
| Mo        | .875* | -.664 | -.226 | -.559 | .980* | -.516 | -.414 | -.727 | -.425 | 1.000 |       |       |
| Cl        | .444  | -.938 | .009  | -.432 | .423  | .097  | .126  | -.659 | -.370 | .574* | 1.000 |       |
| Ni        | -.439 | .938* | -.094 | .516* | -.363 | -.085 | -.051 | .654* | .475  | -.517 | -.988 | 1.000 |

\*Significant (p<0.05%)

**Table S2: Correlation matrix for essential plant nutrients in potato peels**

| Nutrients | P     | K     | S     | Ca    | Zn    | Cu    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |
| K         | .042  | 1.000 |       |       |       |       |       |       |       |       |       |
| S         | .895* | .002  | 1.000 |       |       |       |       |       |       |       |       |
| Ca        | -.265 | .916* | -.153 | 1.000 |       |       |       |       |       |       |       |
| Zn        | -.466 | .053  | -.529 | .116  | 1.000 |       |       |       |       |       |       |
| Cu        | .193  | .789* | .310  | .766* | .267  | 1.000 |       |       |       |       |       |
| Fe        | -.212 | .949* | -.139 | .996* | .113  | .775* | 1.000 |       |       |       |       |
| Mn        | -.450 | .847* | -.375 | .960* | .095  | .560* | .952* | 1.000 |       |       |       |
| Mo        | -.618 | -.677 | -.448 | -.397 | .535* | -.375 | -.462 | -.331 | 1.000 |       |       |
| Cl        | -.153 | .950* | -.247 | .882* | .330  | .736* | .916* | .846* | -.491 | 1.000 |       |
| Ni        | -.408 | .851* | -.325 | .953* | .410  | .767* | .947* | .917  | -.192 | .907* | 1.000 |

\*Significant (p<0.05%)

**Table S3: Correlation matrix for essential plant nutrients in banana peels**

| Nutrients | P     | K     | S     | Ca    | Mg    | Zn    | Cu    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |       |
| K         | .878* | 1.000 |       |       |       |       |       |       |       |       |       |       |
| S         | -.010 | -.190 | 1.000 |       |       |       |       |       |       |       |       |       |
| Ca        | .926* | .867* | .238  | 1.000 |       |       |       |       |       |       |       |       |
| Mg        | -.879 | -.902 | -.250 | -.968 | 1.000 |       |       |       |       |       |       |       |
| Zn        | .726* | .892* | -.612 | .596* | -.612 | 1.000 |       |       |       |       |       |       |
| Cu        | .701* | .414  | .408  | .779* | -.612 | .167  | 1.000 |       |       |       |       |       |
| Fe        | .743* | .899* | .000  | .748* | -.877 | .716* | .179  | 1.000 |       |       |       |       |
| Mn        | .044  | -.101 | .968* | .339  | -.323 | -.527 | .527* | .000  | 1.000 |       |       |       |
| Mo        | .761* | .648* | .606* | .895* | -.910 | .248  | .712* | .698* | .636* | 1.000 |       |       |
| Cl        | .712* | .615* | -.550 | .538* | -.389 | .767* | .531* | .251  | -.428 | .145  | 1.000 |       |
| Ni        | .550* | .451  | .791* | .762* | -.791 | .000  | .645* | .555* | .816* | .959* | -.102 | 1.000 |

\*Significant (p<0.05%)

**Table S4: Correlation matrix for essential plant nutrients in orange peels**

| Nutrients | P     | K     | S     | Ca    | Mg    | Zn    | Cu    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |       |
| K         | -.822 | 1.000 |       |       |       |       |       |       |       |       |       |       |
| S         | -.172 | .630* | 1.000 |       |       |       |       |       |       |       |       |       |
| Ca        | -.263 | .108  | -.533 | 1.000 |       |       |       |       |       |       |       |       |
| Mg        | -.284 | .218  | -.412 | .982* | 1.000 |       |       |       |       |       |       |       |
| Zn        | -.198 | .034  | -.507 | .458  | .511* | 1.000 |       |       |       |       |       |       |
| Cu        | -.445 | .775* | .944* | -.516 | -.403 | -.361 | 1.000 |       |       |       |       |       |
| Fe        | -.882 | .907* | .276  | .372  | .470  | .423  | .484  | 1.000 |       |       |       |       |
| Mn        | -.446 | .136  | .108  | -.537 | -.618 | -.285 | .332  | .047  | 1.000 |       |       |       |
| Mo        | -.352 | .482  | .751* | -.567 | -.567 | -.776 | .790* | .119  | .624* | 1.000 |       |       |
| Cl        | -.543 | .643* | .023  | .769* | .864* | .506* | .084  | .806* | -.508 | -.289 | 1.000 |       |
| Ni        | -.451 | .634* | .325  | .016  | .174  | .645* | .466  | .751* | -.123 | -.137 | .565* | 1.000 |

\*Significant (p&lt;0.05%)

**Table S5: Correlation matrix for essential plant nutrients in eggshell**

| Nutrients | P     | S     | Ca    | Mg    | Cu    | Fe    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |
| S         | -.177 | 1.000 |       |       |       |       |       |       |       |
| Ca        | .693* | .530* | 1.000 |       |       |       |       |       |       |
| Mg        | -.527 | .284  | -.056 | 1.000 |       |       |       |       |       |
| Cu        | .898* | .085  | .684* | -.612 | 1.000 |       |       |       |       |
| Fe        | .255  | .792* | .867* | .250  | .272  | 1.000 |       |       |       |
| Mo        | .005  | .464  | .117  | -.639 | .332  | .155  | 1.000 |       |       |
| Cl        | -.561 | -.351 | -.783 | -.321 | -.548 | -.603 | .332  | 1.000 |       |
| NI        | .386  | -.383 | .179  | .408  | .167  | -.068 | -.854 | -.667 | 1.000 |

\*Significant (p&lt;0.05%)

**Table S6: Correlation matrix for essential plant nutrients in cow bone**

| Nutrients | P     | K     | Ca    | Zn    | Cu    | Fe    | Mn    | Ni    | Cl    | Mo    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |
| K         | -.545 | 1.000 |       |       |       |       |       |       |       |       |
| Ca        | -.268 | -.014 | 1.000 |       |       |       |       |       |       |       |
| Zn        | .336  | .546* | -.366 | 1.000 |       |       |       |       |       |       |
| Cu        | -.177 | -.292 | .182  | -.767 | 1.000 |       |       |       |       |       |
| Fe        | -.176 | .757* | .270  | .429  | .064  | 1.000 |       |       |       |       |
| Mn        | -.588 | .309  | -.112 | .086  | -.559 | -.352 | 1.000 |       |       |       |
| Ni        | -.349 | .359  | .766* | -.210 | .456  | .745* | -.408 | 1.000 |       |       |
| Cl        | .295  | -.333 | -.830 | -.124 | .360  | -.364 | -.242 | -.559 | 1.000 |       |
| Mo        | .024  | -.732 | .105  | -.907 | .833* | -.479 | -.373 | .043  | .440  | 1.000 |

\*Significant (p&lt;0.05%)

**Table S7: Correlation matrix for essential plant nutrients in chicken bone**

| Nutrients | P     | K     | S     | Ca    | Zn    | Cu    | Mo    | Mn    | Fe    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |
| K         | -.496 | 1.000 |       |       |       |       |       |       |       |       |       |
| S         | -.048 | -.250 | 1.000 |       |       |       |       |       |       |       |       |
| Ca        | -.583 | .183  | -.664 | 1.000 |       |       |       |       |       |       |       |
| Mg        | .442  | .354  | .244  | -.801 | 1.000 |       |       |       |       |       |       |
| Zn        | .133  | -.839 | .646* | -.314 | -.267 | 1.000 |       |       |       |       |       |
| Cu        | -.300 | -.662 | .137  | .411  | -.813 | .735* | 1.000 |       |       |       |       |
| Fe        | .340  | -.713 | .808* | -.684 | .147  | .907* | .381  | 1.000 |       |       |       |
| Mn        | -.877 | .504* | .093  | .544* | -.456 | -.245 | .138  | -.405 | 1.000 |       |       |
| Mo        | .030  | .633* | .180  | -.336 | .554* | -.583 | -.824 | -.284 | .301  | 1.000 |       |
| Cl        | .161  | -.832 | .673* | -.365 | -.217 | .999* | .697* | .928* | -.268 | -.551 | 1.000 |

\*Significant (p&lt;0.05%)

**Table S8: Correlation matrix for essential plant nutrients in fish bone**

| Nutrients | P     | K     | S     | Ca    | Mg    | Zn    | Mn    | Fe    | Cu    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |       |
| K         | -.355 | 1.000 |       |       |       |       |       |       |       |       |       |       |
| S         | .246  | .075  | 1.000 |       |       |       |       |       |       |       |       |       |
| Ca        | -.315 | .980* | .177  | 1.000 |       |       |       |       |       |       |       |       |
| Mg        | -.396 | -.648 | .001  | -.592 | 1.000 |       |       |       |       |       |       |       |
| Zn        | -.017 | .869* | .496  | .874* | -.717 | 1.000 |       |       |       |       |       |       |
| Mn        | -.229 | .847* | .207  | .931* | -.439 | .733* | 1.000 |       |       |       |       |       |
| Fe        | -.354 | .893* | -.056 | .935* | -.473 | .660* | .960* | 1.000 |       |       |       |       |
| Cu        | -.202 | .936* | .095  | .975* | -.623 | .806* | .966* | .972* | 1.000 |       |       |       |
| Mo        | -.231 | .769* | -.148 | .833* | -.437 | .516* | .930* | .969* | .922* | 1.000 |       |       |
| Cl        | -.239 | .829* | .068  | .907* | -.440 | .656* | .989* | .980* | .964* | .974* | 1.000 |       |
| Ni        | .080  | .719* | .226  | .823* | -.538 | .678* | .947* | .876* | .912* | .905* | .945* | 1.000 |

\*Significant (p&lt;0.05%)

**Table S9: Correlation matrix for essential plant nutrients in vegetable combined**

| Nutrients | P     | K     | S     | Ca    | Zn    | Mn    | Fe    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |
| K         | -.257 | 1.000 |       |       |       |       |       |       |       |       |
| S         | -.955 | .025  | 1.000 |       |       |       |       |       |       |       |
| Ca        | -.186 | -.676 | .467  | 1.000 |       |       |       |       |       |       |
| Zn        | .987* | -.247 | -.973 | -.280 | 1.000 |       |       |       |       |       |
| Mn        | .625* | .020  | -.554 | .093  | .579* | 1.000 |       |       |       |       |
| Fe        | .733* | -.326 | -.780 | -.436 | .799* | -.018 | 1.000 |       |       |       |
| Mo        | -.571 | -.593 | .769* | .857* | -.601 | -.295 | -.506 | 1.000 |       |       |
| Cl        | .643* | .220  | -.699 | -.327 | .665* | .888* | .202  | -.569 | 1.000 |       |
| Ni        | .458  | -.202 | -.286 | .474  | .373  | .918* | -.228 | .064  | .641* | 1.000 |

\*Significant (p&lt;0.05%)

**Table S10: Correlation matrix for essential plant nutrients in fruit combined**

| Nutrients | P     | K     | S      | Ca    | Mg    | Cu    | Zn    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |        |       |       |       |       |       |       |       |       |       |
| K         | .880* | 1.000 |        |       |       |       |       |       |       |       |       |       |
| S         | .431  | .632* | 1.000  |       |       |       |       |       |       |       |       |       |
| Ca        | .743* | .962* | .620*  | 1.000 |       |       |       |       |       |       |       |       |
| Mg        | -.590 | -.209 | -.244  | .028  | 1.000 |       |       |       |       |       |       |       |
| Cu        | .430  | .531* | .408   | .651* | -.006 | 1.000 |       |       |       |       |       |       |
| Zn        | .431  | .632* | 1.000* | .620* | -.244 | .408  | 1.000 |       |       |       |       |       |
| Fe        | .885* | .806* | .196   | .659* | -.378 | .080  | .196  | 1.000 |       |       |       |       |
| Mn        | .383  | .378  | -.408  | .339  | .194  | -.167 | -.408 | .721* | 1.000 |       |       |       |
| Mo        | .860* | .994* | .639*  | .979* | -.174 | .617* | .639* | .752* | .332  | 1.000 |       |       |
| Cl        | .440  | .500* | .827*  | .514* | -.388 | .742* | .827* | .016  | -.587 | .552  | 1.000 |       |
| Ni        | .735* | .893* | .408   | .845* | -.006 | .167  | .408  | .881* | .667* | .854* | .089  | 1.000 |

\*Significant (p&lt;0.05%)

**Table S11: Correlation matrix for essential plant nutrients in animal combined**

| Nutrients | P     | K     | S     | Ca    | Mg    | Cu    | Zn    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P         | 1.000 |       |       |       |       |       |       |       |       |       |       |       |
| K         | .328  | 1.000 |       |       |       |       |       |       |       |       |       |       |
| S         | -.549 | -.307 | 1.000 |       |       |       |       |       |       |       |       |       |
| Ca        | -.546 | .136  | .866* | 1.000 |       |       |       |       |       |       |       |       |
| Mg        | .339  | .984* | -.305 | .164  | 1.000 |       |       |       |       |       |       |       |
| Cu        | .343  | .598* | -.855 | -.615 | .535* | 1.000 |       |       |       |       |       |       |
| Zn        | .029  | .320  | -.796 | -.503 | .363  | .732* | 1.000 |       |       |       |       |       |
| Fe        | -.508 | .132  | .896* | .960* | .113  | -.571 | -.644 | 1.000 |       |       |       |       |
| Mn        | -.242 | .402  | .746* | .915* | .395  | -.423 | -.573 | .943* | 1.000 |       |       |       |
| Mo        | -.409 | -.271 | .958* | .764* | -.311 | -.767 | -.909 | .870* | .738* | 1.000 |       |       |
| Cl        | -.503 | -.270 | .324  | .090  | -.423 | .001  | -.351 | .308  | .090  | .470  | 1.000 |       |
| Ni        | -.311 | .260  | .837* | .937* | .250  | -.535 | -.665 | .975* | .988* | .830* | .165  | 1.000 |

\*Significant (p&lt;0.05%)

**Table S12: Correlation matrix for essential plant nutrients in all combined**

| Nutrients | P     | K     | S     | Ca    | Mg    | Cu    | Zn    | Fe    | Mn    | Mo    | Cl    | Ni    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>P</b>  | 1.000 |       |       |       |       |       |       |       |       |       |       |       |
| <b>K</b>  | .484  | 1.000 |       |       |       |       |       |       |       |       |       |       |
| <b>S</b>  | -.981 | -.365 | 1.000 |       |       |       |       |       |       |       |       |       |
| <b>Ca</b> | -.041 | .105  | -.057 | 1.000 |       |       |       |       |       |       |       |       |
| <b>Mg</b> | .240  | -.544 | -.255 | -.721 | 1.000 |       |       |       |       |       |       |       |
| <b>Cu</b> | -.538 | .079  | .534* | .719* | -.802 | 1.000 |       |       |       |       |       |       |
| <b>Zn</b> | -.779 | -.085 | .784* | .503* | -.686 | .943* | 1.000 |       |       |       |       |       |
| <b>Fe</b> | -.315 | .333  | .339  | .737* | -.874 | .960* | .838* | 1.000 |       |       |       |       |
| <b>Mn</b> | .639* | .339  | -.561 | -.738 | .559* | -.896 | -.877 | -.760 | 1.000 |       |       |       |
| <b>Mo</b> | -.764 | .120  | .773* | .359  | -.767 | .717  | .827* | .633* | -.600 | 1.000 |       |       |
| <b>Cl</b> | .645* | .382  | -.719 | .266  | -.108 | -.395 | -.576 | -.263 | .390  | -.238 | 1.000 |       |
| <b>Ni</b> | .423  | .421  | -.383 | .536* | -.375 | .468  | .196  | .631* | -.280 | -.192 | -.050 | 1.000 |

\*Significant (p<0.05%)