**Table 1.** Proximate components of ricebean accessions (g/100g)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Ricebean accession | Protein | Fat | Ash | SDF\* | IDF\* | TDF\* |
| VRB-3 | 24.49±0.28de | 1.55±0.18cd | 4.32±0.09mn | 3.61 | 12.24 | 15.85 |
| PRR-2 | 25.64±0.23jk | 2.06±0.17hi | 4.18±0.09ij | 3.56 | 11.19 | 14.76 |
| IC 521366 | 24.26±0.13bc | 1.78±0.25de | 3.53±0.13a | 2.90 | 10.35 | 13.26 |
| IC 360608 | 24.24±0.13bc | 1.88±0.31e | 3.50±0.18a | 2.90 | 10.35 | 13.26 |
| IC 341964 | 23.98±0.02bc | 1.54±0.02cd | 3.80±0.06bc | 3.11 | 10.13 | 13.24 |
| IC 341951 | 23.94±0.18bc | 1.95±0.27fg | 3.63±0.03ab | 3.32 | 10.55 | 13.88 |
| IC 360597 | 24.09±0.04bc | 1.72±0.11cd | 3.50±0.100a | 3.05 | 9.39 | 12.44 |
| IC 108860 | 24.42±0.08cd | 2.04±0.23gh | 4.16±0.03ij | 3.07 | 9.30 | 12.37 |
| IC 137171 | 24.45±0.22cd | 1.95±0.05fg | 4.01±0.08e | 3.19 | 11.21 | 14.40 |
| IC 341991 | 24.97±0.06gh | 1.86±0.07de | 4.11±0.05gh | 3.33 | 10.89 | 14.22 |
| IC 341987 | 24.63±0.01ef | 1.61±0.12cd | 4.23±0.013jk | 3.58 | 11.23 | 14.80 |
| IC 108867 | 27.33±0.01s | 2.49±0.52k | 4.30±0.02lm | 3.41 | 9.38 | 12.79 |
| IC 521122 | 23.80±0.00b | 2.01±0.06gh | 4.04±0.01fg | 4.26 | 12.53 | 16.79 |
| IC 341996 | 26.98±0.01rs | 1.84±0.09de | 3.93±0.18c | 3.11 | 10.87 | 13.98 |
| IC 137206 | 25.70±0.07jk | 2.21±0.04jk | 4.06±0.05fg | 3.69 | 11.08 | 14.77 |
| IC 395028 | 25.69±0.12jk | 2.10±0.04ij | 4.04±0.09fg | 3.45 | 10.88 | 14.33 |
| IC 16791 | 25.92±0.42kl | 2.46±0.39k | 4.12±0.12h | 3.33 | 11.96 | 15.28 |
| IC 341982 | 25.91±0.09kl | 1.52±0.26cd | 3.85±0.06bc | 3.63 | 11.09 | 14.72 |
| IC 341995 | 27.00±0.03rs | 1.40±0.29bc | 3.84±0.05bc | 3.06 | 9.21 | 12.27 |
| IC 326993 | 24.53±0.10ef | 1.46±0.40cd | 3.74±0.01ab | 3.60 | 12.18 | 15.78 |
| IC 26973 | 26.13±0.04mn | 1.15±0.03ab | 3.67±0.01ab | 2.32 | 11.44 | 13.76 |
| IC 391998 | 23.23±0.11a | 1.32±0.36bc | 3.68±0.05ab | 3.14 | 11.85 | 14.99 |
| IC 200087 | 25.63±0.10jk | 1.33±0.19bc | 3.86±0.23bc | 2.91 | 11.05 | 13.95 |
| IC 248806 | 25.82±0.21kl | 1.38±0.01bc | 3.74±0.06ab | 3.19 | 10.28 | 13.47 |
| IC 248804 | 25.57±0.00jk | 1.57±0.11cd | 4.21±0.01jk | 3.27 | 10.40 | 13.67 |
| IC 185653 | 24.81±0.44fg | 1.76±0.49de | 4.10±0.00gh | 3.40 | 11.82 | 15.22 |
| IC 108862 | 25.20±0.04hi | 1.74±0.47de | 3.98±0.02de | 3.85 | 10.31 | 14.15 |
| IC 330410 | 26.12±0.69lm | 1.14±0.02ab | 4.40±0.33n | 3.21 | 9.77 | 12.98 |
| IC 341966 | 25.62±0.05jk | 1.32±0.42bc | 4.08±0.02gh | 3.34 | 10.77 | 14.11 |
| IC 341984 | 26.65±0.23qr | 1.49±0.13cd | 3.84±0.03bc | 3.34 | 9.44 | 12.78 |
| IC 521124 | 26.22±0.06no | 1.79±0.19de | 4.30±0.08lm | 2.91 | 10.74 | 13.64 |
| IC 521359 | 24.50±0.10de | 0.83±0.06ab | 4.27±0.05kl | 3.42 | 11.24 | 14.67 |
| IC 296128 | 24.61±0.02ef | 0.69±0.04a | 4.02±0.06fg | 3.16 | 10.78 | 13.94 |
| IC 335412 | 26.33±0.19op | 1.36±0.01bc | 3.99±0.09de | 3.38 | 10.84 | 14.22 |
| IC 521115 | 26.61±0.53pq | 1.28±0.25bc | 4.28±0.04kl | 2.41 | 10.39 | 12.79 |
| IC 108865 | 25.45±0.15ij | 1.55±0.24cd | 4.05±0.01fg | 2.74 | 11.04 | 13.78 |
| IC 521116 | 26.19±0.23no | 1.60±0.15cd | 4.03±0.01fg | 2.46 | 10.40 | 12.85 |
| IC 521134 | 27.16±0.59s | 1.30±0.18bc | 3.75±0.36ab | 3.10 | 10.09 | 13.19 |
| Mean (n=38) | 25.36 | 1.63 | 3.97 | 3.23 | 10.75 | 13.98 |
| Range | 23.23-27.33 | 0.69-2.49 | 3.50-4.40 | 2.32-4.26 | 9.21-12.53 | 12.27-16.79 |

\*Dietary fiber fractions are analyzed as single replication, SDF-soluble dietary fiber, IDF-insoluble dietary fiber, TDF-total dietary fiber. The superscripts a to s shows the significant difference among the ricebean accessions column wise

**Table 2.** Free sugars, oligosaccharides and starch components in ricebean accessions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ricebean accession | Free sugars (mg/100g) | | | Oligosaccharides (mg/100g) | | Starch components (%) | | |
| Glucose | Fructose | Sucrose | Raffinose | Stachyose | Amylose | RS | DS |
| VRB-3 | 13.99±0.18cd | 21.52±1.22de | 331.52±8.32hi | 141.77±6.53ij | 4582±37kl | 21.07±0.77cd | 8.58±0.32m | 26.23±0.30b |
| PRR-2 | 7.51±0.99ab | 11.55±1.35ab | 158.82±8.25ab | 128.29±30.07hi | 3986±383gh | 22.15±0.16de | 8.62±0.14m | 25.31±0.41ab |
| IC 521366 | 7.13±0.74ab | 17.27±0.41ab | 217.08±12.14cd | 66.44±6.06bc | 3328±37de | 26.57±0.46lm | 6.18±0.12hi | 31.40±0.74de |
| IC 360608 | 10.02±0.35ab | 17.30±2.78ab | 257.46±36.25fg | 99.79±2.44de | 3472±110de | 28.96±2.13pq | 7.08±0.10l | 28.74±0.37c |
| IC 341964 | 11.00±0.94ab | 23.04±0.53fg | 257.28±0.50fg | 80.94±5.83cd | 2887±402cd | 24.00±1.88hi | 5.17±0.06cd | 36.70±0.63ij |
| IC 341951 | 6.00±0.18ab | 14.83±0.11ab | 174.81±14.47ab | 93.70±0.94de | 3427±24de | 24.77±0.71kl | 5.91±0.06gh | 38.03±0.56kl |
| IC 360597 | 6.62±0.51ab | 21.92±0.50de | 283.32±28.07gh | 92.40±4.90cd | 3015±316cd | 27.48±0.57op | 6.24±0.06i | 32.32±1.03ef |
| IC 108860 | 4.51±0.97a | 14.60±1.12ab | 252.01±17.67ef | 157.70±3.71lm | 4397±563jk | 30.01±0.92s | 4.46±0.06a | 43.32±0.24rs |
| IC 137171 | 7.23±0.33ab | 19.09±0.45bc | 370.13±37.01i | 154.47±21.36lm | 4411±1479jk | 20.83±0.91bc | 4.80±0.04b | 41.82±0.48q |
| IC 341991 | 6.04±0.55ab | 16.30±1.34ab | 261.07±11.59fg | 161.97±2.10mn | 5321±149l | 23.37±0.33fg | 5.56±0.10fg | 37.86±0.63kl |
| IC 341987 | 6.16±0.86ab | 14.72±0.82ab | 273.87±0.92fg | 122.77±11.74fg | 4360±435jk | 21.35±0.65cd | 7.13±0.06l | 31.66±0.42ef |
| IC 108867 | 5.65±0.45ab | 20.25±0.55cd | 242.72±13.47ef | 186.17±13.53p | 5765±700l | 25.22±1.85kl | 4.86±0.09bc | 41.72±0.61q |
| IC 521122 | 13.82±1.05de | 24.10±0.91gh | 333.94±6.85hi | 130.00±0.00hi | 4210±339ij | 22.35±0.87de | 5.35±0.05de | 36.14±0.60i |
| IC 341996 | 6.34±0.70ab | 18.85±0.50bc | 244.15±14.28ef | 115.00±7.07ef | 3895±205gh | 24.30±1.28ij | 5.01±0.11bc | 36.34±1.05i |
| IC 137206 | 5.30±0.31ab | 13.37±0.27ab | 352.60±53.62i | 170.00±28.28no | 4002±326hi | 24.29±0.22ij | 4.40±0.06a | 42.20±1.18q |
| IC 395028 | 7.12±0.00ab | 16.11±0.70ab | 268.88±0.62fg | 153.11±7.63kl | 3950±190hi | 19.33±0.87ab | 4.80±0.04b | 43.44±0.37s |
| IC 16791 | 13.49±1.00cd | 21.60±2.49de | 288.99±13.22gh | 155.15±33.87lm | 3602±457ef | 28.78±0.69pq | 5.90±0.05gh | 38.53±0.21kl |
| IC 341982 | 5.13±0.48ab | 7.11±0.24a | 150.67±5.65ab | 98.50±5.95de | 2311±88cd | 32.50±0.07t | 5.21±0.04cd | 37.51±0.24jk |
| IC 341995 | 9.31±0.03ab | 17.21±2.53ab | 139.87±4.69ab | 97.77±9.59de | 2887±18cd | 29.17±1.09rs | 4.32±0.19a | 39.30±0.39no |
| IC 326993 | 6.32±0.09ab | 14.05±0.24ab | 172.71±11.32ab | 173.46±23.04op | 3474±365de | 26.81±0.41mn | 5.17±0.08cd | 38.40±0.59kl |
| IC 26973 | 12.69±1.47bc | 12.55±0.26ab | 175.82±1.71ab | 125.97±13.37gh | 2647±329cd | 29.02±0.52qr | 6.81±0.07kl | 33.32±0.63g |
| IC 391998 | 9.00±1.10ab | 14.43±2.56ab | 195.90±11.44bc | 96.73±7.17de | 2604±35cd | 30.46±1.09s | 5.78±0.19g | 35.85±0.37hi |
| IC 200087 | 9.10±0.34ab | 11.96±0.08ab | 174.26±4.17ab | 119.64±20.20ef | 3017±541cd | 18.54±1.18a | 5.64±0.86fg | 30.58±0.52d |
| IC 248806 | 12.48±0.63bc | 9.44±0.66ab | 152.60±11.65ab | 122.98±1.97fg | 2774±19cd | 24.60±0.37jk | 5.57±0.10fg | 32.47±0.43fg |
| IC 248804 | 18.60±2.57gh | 14.82±0.17ab | 231.91±25.44de | 47.54±5.06ab | 1177±13ab | 28.87±0.02pq | 6.44±0.07ij | 39.26±0.89no |
| IC 185653 | 15.32±2.30ef | 13.59±0.13ab | 330.13±1.48hi | 74.81±6.17cd | 1790±92bc | 30.21±1.53s | 7.07±0.07l | 28.88±0.30c |
| IC 108862 | 10.68±1.14ab | 11.08±0.08ab | 176.88±6.63ab | 112.39±0.07ef | 2821±107cd | 21.90±0.20de | 5.84±0.15g | 33.17±0.93g |
| IC 330410 | 13.37±0.42cd | 7.57±0.07a | 164.39±11.16ab | 135.85±11.63hi | 2730±47cd | 24.63±0.47kl | 4.42±0.09a | 39.91±0.80p |
| IC 341966 | 16.79±1.04ef | 7.86±0.62a | 125.23±11.95a | 146.76±9.31jk | 3684±201fg | 23.86±0.10gh | 5.65±0.03fg | 35.07±0.81h |
| IC 341984 | 24.14±1.54h | 10.92±0.07ab | 179.36±16.43ab | 146.08±1.17jk | 3024±24cd | 24.93±1.12kl | 5.11±0.16bc | 38.40±0.11kl |
| IC 521124 | 17.90±0.88fg | 12.89±0.59ab | 214.75±9.10cd | 145.83±4.70jk | 3268±58de | 24.39±1.38ij | 4.13±0.18a | 42.43±0.57qr |
| IC 521359 | 18.27±0.24fg | 14.12±0.93ab | 150.18±7.14ab | 166.47±11.13no | 3382±344 de | 23.23±0.07ef | 5.64±0.17fg | 38.10±0.24kl |
| IC 296128 | 15.67±7.03ef | 26.53±0.74h | 267.64±22.26fg | 100.77±0.05de | 3362±235 de | 18.78±1.09ab | 4.94±0.23bc | 39.74±0.15op |
| IC 335412 | 10.69±0.22ab | 15.14±0.17ab | 133.86±25.89a | 101.16±0.24de | 2635±102cd | 18.80±1.11ab | 5.38±0.05ef | 39.24±0.33no |
| IC 521115 | 9.98±0.55ab | 22.44±2.98ef | 141.27±8.55ab | 98.49±3.57de | 2008±93ab | 20.29±0.55ab | 6.72±0.08jk | 36.17±0.35i |
| IC 108865 | 15.15±0.59ef | 15.57±1.40ab | 152.59±12.94ab | 90.10±1.34cd | 3888±58gh | 26.96±1.14no | 8.54±0.04m | 24.43±0.28a |
| IC 521116 | 18.56±0.16fg | 21.52±1.22de | 222.61±12.54cd | 165.81±18.35no | 4116±350hi | 21.69±0.64de | 5.11±0.16bc | 38.72±0.74lm |
| IC 521134 | 17.27±2.02fg | 19.11±0.81bc | 170.67±27.09ab | 170.72±14.04op | 3869±179gh | 20.93±0.95bc | 5.74±0.19g | 38.99±0.55mn |
| Mean (n=38) | 11.17 | 15.96 | 220.84 | 124.93 | 3423.59 | 24.62 | 5.77 | 36.10 |
| Range | 4.51-24.14 | 7.11-26.53 | 125.23-370.13 | 47.54-186.17 | 1177-5765 | 18.54-32.50 | 4.13-8.62 | 24.43-43.44 |

RS-resistant starch, DS-digestible starch, The superscripts a to t shows the significant difference among the ricebean accessions column wise

**Table 3.** Mineralcomposition of ricebean accessions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ricebean accession | Fe (mg/100g) | Zn (mg/100g) | Cu (mg/100g) | Mn (mg/100g) | Mg  (mg/100g) | K  (mg/100g) | P  (mg/100g) | Se (µg/100g) |
| VRB-3 | 7.46±0.31l | 3.50±0.42n | 0.93±0.03o | 2.04±0.04ij | 201±4.72ef | 1659±35.42kl | 460±4.01p | 0.83±0.05gh |
| PRR-2 | 6.69±0.24kl | 3.72±0.13o | 0.85±0.02mn | 2.01±0.04hi | 204±4.43ef | 1619±14.38hi | 546±28.79q | 0.75±0.02ef |
| IC 521366 | 5.37±0.43ef | 2.80±0.13fg | 0.74±0.06kl | 1.77±0.03bc | 232±21.34j | 1484±43.98ab | 220±17.07ab | 0.42±0.03ab |
| IC 360608 | 4.52±0.10bc | 2.78±0.05fg | 1.53±0.00q | 2.04±0.01ij | 190±8.90ef | 1457±32.76ab | 203±6.75ab | 0.36±0.13ab |
| IC 341964 | 4.86±0.07bc | 3.02±0.06jk | 0.55±0.02ij | 1.89±0.03fg | 202±4.68ef | 1438±156.46ab | 302±2.34ef | 0.43±0.16ab |
| IC 341951 | 5.22±0.18de | 2.99±0.08ij | 1.83±0.12t | 2.00±0.02hi | 185±44.32ef | 1611±74.11gh | 245±38.54bc | 0.34±0.05ab |
| IC 360597 | 5.03±0.09bc | 3.22±0.11m | 0.74±0.02kl | 2.04±0.03ij | 139±1.38d | 1512±11.28ab | 250±27.48bc | 0.44±0.07ab |
| IC 108860 | 4.66±0.06bc | 2.92±0.01hi | 1.15±0.07p | 2.03±0.00ij | 139±0.95d | 1536±63.74ab | 277±7.01de | 0.65±0.06de |
| IC 137171 | 4.31±0.08ab | 1.90±0.09a | 1.53±0.08q | 1.76±0.03bc | 133±1.74d | 1496±0.49ab | 267±1.25cd | 4.07±0.17m |
| IC 341991 | 4.79±0.05bc | 2.89±0.02gh | 1.72±0.03s | 1.72±0.04ab | 117±5.99cd | 1571±21.56cd | 270±6.67de | 0.49±0.03ab |
| IC 341987 | 4.34±0.20ab | 3.21±0.08m | 0.65±0.02jk | 2.02±0.04hi | 100±3.91ab | 1587±48.62ef | 327±31.95gh | 0.44±0.10ab |
| IC 108867 | 4.97±0.13bc | 3.20±0.01m | 1.04±0.02p | 1.81±0.02cd | 94±0.63ab | 1649±101.94jk | 415±32.78mn | 0.74±0.11ef |
| IC 521122 | 4.24±0.16ab | 2.49±0.04cd | 0.80±0.02lm | 1.74±0.05bc | 86±2.92ab | 1484±12.23ab | 323±3.76fg | 4.48±0.21n |
| IC 341996 | 4.43±0.07bc | 3.12±0.04lm | 1.64±0.02r | 1.87±0.01ef | 77±3.05a | 1455±16.75ab | 342±3.49hi | 0.28±0.08a |
| IC 137206 | 4.12±0.10ab | 2.11±0.11b | 0.52±0.13hi | 1.66±0.02a | 84±2.69ab | 1476±10.09ab | 328±31.14gh | 2.13±0.16k |
| IC 395028 | 5.42±0.08gh | 3.02±0.03jk | 1.13±0.00p | 2.07±0.01jk | 91±2.36ab | 1539±67.40ab | 359±10.63ij | 0.88±0.11h |
| IC 16791 | 4.59±0.05bc | 2.55±0.06cd | 0.63±0.03jk | 1.97±0.04hi | 99±14.28ab | 1451±8.71ab | 359±10.48ij | 2.56±0.14l |
| IC 341982 | 4.23±0.11ab | 2.69±0.02ef | 0.31±0.01ab | 1.84±0.01de | 105±10.78bc | 1512±88.76ab | 343±10.97hi | 0.40±0.13ab |
| IC 341995 | 4.64±0.12bc | 3.02±0.04jk | 0.36±0.01bc | 1.89±0.03fg | 93±7.57ab | 1462±1.03ab | 287±12.70de | 0.57±0.05bc |
| IC 326993 | 4.38±0.01ab | 2.51±0.05cd | 0.42±0.02de | 1.72±0.05ab | 79±4.76ab | 1423±14.80a | 251±34.69bc | 0.48±0.11ab |
| IC 26973 | 4.74±0.16bc | 2.83±0.02fg | 0.43±0.08ef | 1.86±0.10ef | 88±9.29ab | 1448±85.28ab | 298±1.93ef | 0.44±0.05ab |
| IC 391998 | 4.54±0.04bc | 2.66±0.02ef | 0.39±0.01cd | 1.79±0.04bc | 85±3.47ab | 1451±0.86ab | 282±17.51de | 2.66±0.05l |
| IC 200087 | 4.53±0.61bc | 2.51±0.01cd | 0.23±0.00a | 1.84±0.04de | 201±0.05ef | 1522±62.51ab | 313±12.42gh | 0.57±0.07bc |
| IC 248806 | 4.51±0.07bc | 2.84±0.02fg | 0.26±0.01ab | 1.93±0.08gh | 231±3.26j | 1467±39.48ab | 349±22.19hi | 0.44±0.08ab |
| IC 248804 | 5.16±0.05cd | 2.64±0.03de | 0.39±0.01cd | 2.02±0.00hi | 207±3.64ef | 1579±20.31de | 289±10.47de | 0.41±0.18ab |
| IC 185653 | 5.64±0.07hi | 2.41±0.05c | 0.27±0.04ab | 1.98±0.02hi | 212±1.13gh | 1644±2.84ij | 301±13.53ef | 0.80±0.11fg |
| IC 108862 | 4.45±0.19bc | 2.44±0.02cd | 0.24±0.01ab | 2.10±0.00lm | 217±0.75hi | 1538±0.66ab | 273±28.63de | 0.80±0.03fg |
| IC 330410 | 5.86±0.24ij | 2.39±0.05c | 0.45±0.01gh | 1.93±0.01gh | 232±16.57j | 1552±15.17bc | 349±28.17hi | 0.42±0.01ab |
| IC 341966 | 4.95±0.04bc | 2.44±0.04cd | 0.44±0.04fg | 2.09±0.08kl | 221±3.50ij | 1525±98.58ab | 409±37.00lm | 0.72±0.13ef |
| IC 341984 | 5.40±0.05fg | 2.67±0.00ef | 0.43±0.02ef | 2.43±0.01q | 220±15.99ij | 1667±57.42lm | 345±1.75hi | 0.42±0.07ab |
| IC 521124 | 4.93±0.26bc | 2.44±0.01cd | 0.29±0.03ab | 2.13±0.00no | 211±16.55fg | 1701±35.47m | 389±10.37jk | 0.81±0.12fg |
| IC 521359 | 5.62±0.35hi | 2.43±0.02cd | 0.29±0.01ab | 2.13±0.03no | 201±9.10ef | 1602±24.88fg | 343±4.36hi | 1.08±0.04i |
| IC 296128 | 5.18±0.05cd | 2.37±0.09c | 0.33±0.03ab | 2.20±0.02op | 204±2.79ef | 1579±19.91de | 399±12.00kl | 0.37±0.03ab |
| IC 335412 | 5.11±0.08cd | 2.89±0.04gh | 0.32±0.01ab | 1.97±0.06gh | 190±3.44ef | 1602±2.95fg | 399±0.85kl | 0.49±0.10ab |
| IC 521115 | 5.67±0.01hi | 2.91±0.05hi | 0.49±0.06hi | 2.23±0.04p | 197±1.80ef | 1659±16.92kl | 441±13.51no | 0.59±0.07cd |
| IC 108865 | 3.49±0.03a | 3.10±0.02kl | 0.87±0.07no | 2.03±0.02ij | 192±21.50ef | 1496±17.24ab | 365±15.52ij | 1.17±0.10i |
| IC 521116 | 6.20±0.76jk | 2.75±0.06fg | 0.34±0.01ab | 1.99±0.04hi | 181±1.89e | 1627±32.22hi | 439±38.29mn | 1.40±0.05j |
| IC 521134 | 6.18±0.08jk | 2.78±0.13fg | 0.69±0.00kl | 2.11±0.05mn | 201±9.33ef | 1632±19.66hi | 452±2.80op | 0.88±0.02h |
| Mean (n=38) | 5.01 | 2.77 | 0.69 | 1.96 | 162 | 1545 | 337 | 0.95 |
| Range | 3.49-7.46 | 1.90-3.72 | 0.23-1.83 | 1.66-2.43 | 77-232 | 1423-1701 | 203-546 | 0.28-4.48 |
| CV (%) | 20.72 | 13.21 | 86.08 | 8.17 | 34.19 | 5.03 | 37.34 | 102.04 |
| Skewness | 2.45 | 0.20 | 2.35 | 0.34 | -0.35 | 0.23 | 1.19 | 2.54 |
| Kurtosis | 8.58 | 0.54 | 6.11 | 0.55 | -1.62 | -1.16 | 0.82 | 6.26 |
| 25% quartile | 4.49 | 2.47 | 0.33 | 1.83 | 98.43 | 1474 | 281.50 | 0.42 |
| 75% quartile | 5.40 | 3.02 | 0.88 | 2.04 | 205.66 | 1613 | 439.84 | 0.87 |

The superscripts a to q shows the significant difference among the ricebean accessions column wise

**Table 4.** Antinutritional components and molar ratios of phytic acid: minerals of ricebean accessions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ricebean accession | PA (mg/100g) | PA:Fe | PA:Zn | Total saponin (mg/g) | TIU  (mg/100g) | Oxalic acid (mg/100g) | | |
| Soluble | Insoluble | Total |
| VRB-3 | 682±2.82q | 7.68±0.35ef | 19.45±2.27fg | 22.49±0.79ab | 951±23.87qr | 45.79±1.12de | 238±15.08bc | 283±13.96bc |
| PRR-2 | 589±9.19kl | 7.39±0.38de | 15.71±0.81b | 26.88±0.27ab | 759±7.07lm | 43.31±1.26cd | 201±4.27ab | 245±5.53ab |
| IC 521366 | 519±2.83i | 8.12±0.61fg | 18.36±0.94de | 26.98±0.35ab | 419±58.40b | 46.38±0.62ef | 205±16.21ab | 251±15.59ab |
| IC 360608 | 469±4.24ef | 8.70±0.26gh | 16.70±0.44bc | 24.58±1.14ab | 676±27.51hi | 48.05±0.06gh | 277±21.64de | 325±21.58fg |
| IC 341964 | 363±4.05b | 6.26±0.16bc | 11.90±0.36a | 36.85±0.26de | 672±31.43gh | 46.06±1.50ef | 220±32.60ab | 266±31.10ab |
| IC 341951 | 351±3.71b | 5.64±0.15ab | 11.63±0.08a | 31.64±0.03bc | 813±6.81op | 48.84±0.89hi | 264±17.72cd | 313±18.61de |
| IC 360597 | 602±2.10lm | 10.04±0.05kl | 18.51±0.55de | 27.50±2.32ab | 1047±57.80rs | 45.14±0.66de | 274±0.72de | 319±0.07ef |
| IC 108860 | 485±2.24ef | 8.72±0.05gh | 16.47±0.06bc | 27.15±9.11ab | 582±4.43cd | 47.59±0.90ef | 239±11.70bc | 286±10.80bc |
| IC 137171 | 475±1.55ef | 9.24±0.19jk | 24.79±0.06k | 30.48±3.46bc | 958±51.40qr | 50.81±0.47ij | 245±14.38bc | 296±13.90cd |
| IC 341991 | 506±2.83hi | 8.85±0.05hi | 17.34±0.02cd | 39.80±6.62gh | 756±124.01lm | 44.34±3.92cd | 349±43.16ij | 393±39.24jk |
| IC 341987 | 634±5.66no | 12.27±0.44qr | 19.60±0.66fg | 31.68±2.99bc | 820±23.46op | 48.29±0.13hi | 350±8.53ij | 398±8.66jk |
| IC 108867 | 303±7.78a | 5.10±0.02a | 9.35±0.27a | 36.75±9.49de | 957±75.66qr | 66.60±0.80n | 276±56.60de | 342±57.40gh |
| IC 521122 | 508±4.28hi | 10.05±0.30kl | 20.24±0.14gh | 38.56±1.48gh | 566±8.14cd | 52.36±0.59jk | 361±17.79jk | 413±18.38k |
| IC 341996 | 602±7.85lm | 11.40±0.04pq | 19.10±0.27fg | 41.98±9.97ij | 587±30.12cd | 44.83±0.66de | 313±8.86gh | 358±9.52hi |
| IC 137206 | 662±7.19pq | 13.48±0.47st | 31.11±1.21n | 42.69±10.82jk | 644±51.64fg | 66.20±1.34n | 330±22.89ij | 396±21.55jk |
| IC 395028 | 683±1.38q | 10.58±0.17no | 22.38±0.16ij | 46.37±8.47k | 745±36.07kl | 47.10±0.41ef | 315±7.43hi | 362±7.02hi |
| IC 16791 | 492±4.14fg | 9.00±0.17ij | 19.13±0.31fg | 38.11±0.30fg | 788±66.81no | 43.44±1.23cd | 226±12.32ab | 269±13.55bc |
| IC 341982 | 467±1.08de | 9.26±0.20jk | 17.23±0.19cd | 27.52±1.66ab | 652±9.28fg | 60.87±1.05m | 356±3.94jk | 417±4.99k |
| IC 341995 | 499±4.32hi | 9.03±0.30ij | 16.38±0.06bc | 32.50±4.28bc | 774±91.32mn | 48.75±2.30hi | 269±24.92cd | 317±22.61ef |
| IC 326993 | 664±1.41q | 12.72±0.06rs | 26.26±0.60lm | 31.88±3.43bc | 695±9.78ij | 45.59±2.38de | 256±26.09bc | 301±28.47cd |
| IC 26973 | 640±9.02op | 11.34±0.59pq | 22.45±0.26ij | 35.01±4.72cd | 636±50.25ef | 42.05±0.95cd | 233±52.12bc | 275±53.07bc |
| IC 391998 | 632±3.54no | 11.69±0.04qr | 23.53±0.04jk | 37.05±1.24ef | 559±28.41cd | 50.37±4.07ij | 381±18.35l | 431±14.27k |
| IC 200087 | 632±8.49no | 11.80±1.42qr | 24.94±0.45kl | 40.59±0.37hi | 397±4.01ab | 47.16±3.13ef | 335±41.63ij | 382±38.50ij |
| IC 248806 | 616±6.36mn | 11.47±0.28pq | 21.48±0.09hi | 30.85±2.16bc | 501±35.41bc | 40.07±1.69bc | 240±8.01bc | 280±9.70bc |
| IC 248804 | 627±6.57no | 10.20±1.02lm | 23.50±1.89jk | 36.62±0.94de | 548±87.24cd | 47.92±3.92fg | 310±7.75fg | 358±11.67hi |
| IC 185653 | 662±5.66pq | 9.85±0.03kl | 27.28±0.35m | 30.30±1.26bc | 721±101.93jk | 41.94±1.38cd | 377±15.20kl | 419±13.82k |
| IC 108862 | 567±3.54k | 10.69±0.39op | 23.00±0.33j | 40.10±0.86gh | 740±15.15kl | 38.72±0.06bc | 260±1.08cd | 299±1.13cd |
| IC 330410 | 497±4.95gh | 7.11±0.22de | 20.61±0.59gh | 24.22±1.63ab | 528±19.48cd | 41.77±0.13cd | 210±10.91ab | 252±11.04ab |
| IC 341966 | 579±1.41kl | 9.82±0.05kl | 23.51±0.33jk | 28.27±0.83ab | 615±12.25de | 55.07±1.00l | 345±5.22ij | 400±6.22jk |
| IC 341984 | 421±3.54c | 6.53±0.02cd | 15.62±0.15b | 39.15±1.17gh | 711±17.86jk | 66.64±4.26n | 315±4.01hi | 382±0.24ij |
| IC 521124 | 581±7.07kl | 9.89±0.40kl | 23.62±0.22jk | 25.84±2.12ab | 940±7.13qr | 73.61±1.47o | 245±6.23bc | 318±7.70ef |
| IC 521359 | 751±2.12rs | 11.23±0.73pq | 30.54±0.38n | 24.26±0.08ab | 493±1.61bc | 33.16±0.85a | 211±3.30ab | 245±2.45ab |
| IC 296128 | 446±2.83d | 7.22±0.11de | 18.69±0.81ef | 31.66±5.13bc | 811±3.62op | 67.40±4.68n | 219±5.36ab | 287±10.03bc |
| IC 335412 | 565±4.24jk | 9.28±0.07jk | 19.38±0.15fg | 19.86±0.46a | 309±78.10a | 39.92±1.59bc | 179±2.24a | 219±3.83a |
| IC 521115 | 574±7.07k | 8.49±0.11gh | 19.58±0.57fg | 26.68±0.23ab | 587±53.85cd | 47.96±1.01gh | 305±35.73ef | 353±34.71hi |
| IC 108865 | 456±7.07d | 13.79±0.05t | 18.38±0.10de | 32.53±4.28bc | 477±5.44bc | 54.13±2.00kl | 265±11.08cd | 319±13.08ef |
| IC 521116 | 733±7.78r | 6.55±1.50cd | 26.39±0.29m | 22.62±2.78ab | 855±40.16pq | 47.41±9.09ef | 277±2.22de | 324±6.87fg |
| IC 521134 | 760±2.83s | 10.32±0.17mn | 27.16±1.12m | 28.19±0.54ab | 1076±52.32s | 46.26±2.82ef | 337±5.27ij | 383±8.09ij |
| Mean (n=38) | 563 | 9.50 | 20.56 | 32.01 | 694 | 49.26 | 279 | 328 |
| Range | 303-760 | 5.10-13.79 | 9.35-31.11 | 19.86-46.37 | 309-1076 | 33.16-73.61 | 179-381 | 219-431 |
| CV (%) | 19.21 | 22.35 | 23.68 | 20.37 | 25.98 | 57.85 | 9.38 | 17.59 |
| Skewness | -0.38 | -0.06 | 0.02 | 0.23 | 0.16 | 1.16 | 0.19 | 0.08 |
| Kurtosis | -0.10 | -0.42 | 0.10 | -0.78 | -0.29 | 1.06 | -1.07 | -1.07 |
| 25% quartile | 490.25 | 8.01 | 17.31 | 26.95 | 564 | 44.11 | 237.02 | 283.12 |
| 75% quartile | 635.50 | 11.25 | 23.55 | 37.31 | 812 | 51.19 | 331.62 | 382.91 |

PA-phytic acid, TIU-trypsin inhibitor unit, The superscripts a to t shows the significant difference among the ricebean accessions column wise