**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in Oryza sativa**

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|---|---|---|---|---|---|---|
| 5 | 24-METHYLENE-CYCLOARTANOL | Plant | -- | -- | | |
| 6 | ACETALDEHYDE | Plant | -- | -- | | |
| 3 | ACETONE | Plant | -- | -- | | |
| 11 | ADENINE | Seed | -- | -- | | |
| 12 | ALLANTOIN | Seed | -- | -- | | |
| 32 | ALPHA-TOCOPHEROL | Seed | -- | -- | | |
| 1 | ANTHERAXANTHIN | Plant | -- | -- | | |
| 2 | ARSENIC | Seed | 0.211 | 0.211 | 1.5951685300488623 | |
| 112 | ASCORBIC-ACID | Seed | -- | -- | | |
| 2 | ASPARAGINE | Juice | -- | -- | | |
| 3 | ASPARTIC-ACID | Hay | -- | -- | | |
| 1 | BEHENIC-ACID | Seed | -- | -- | | |
| 53 | BETA-CAROTENE | Seed | -- | -- | | |
| 47 | BETA-SITOSTEROL | Juice | -- | -- | | |
| 47 | BETA-SITOSTEROL | Sprout Seedling | -- | -- | | |
| 3 | CADMIUM | Seed | 0.18 | 0.18 | -0.25689996156193823 | |
| 28 | CALCIUM | Plant | 1900 | 3300 | -1.1006215509188604 | |
| 28 | CALCIUM | Seed | 71 | 364 | -0.6946712393018217 | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|---|---|---|---|---|---|---|
| 2 | CAMPESTEROL | Plant | -- | -- | | |
| 1 | CARLINOSIDE | Leaf | -- | -- | | |
| 1 | CELLULOSE | Petiole | 190000 | 210000 | | |
| 1 | CELLULOSE | Plant | 340000 | 534600 | 1.878590737597453 | |
| 20 | CHOLINE | Seed | 880 | 880 | -0.7457854239115329 | |
| 5 | CYANIN | Plant | -- | -- | | |
| 7 | CYCLOARTENOL | Plant | -- | -- | | |
| 3 | CYCLOEUCALENOL | Seed | -- | -- | | |
| 13 | CYSTEINE | Plant | -- | -- | | |
| 2 | DIMETHYL-AMINE | Seed | -- | -- | | |
| 5 | ERGOSTEROL | Sprout Seedling | -- | -- | | |
| 61 | FERULIC-ACID | Plant | -- | -- | | |
| 15 | FIBER | Plant | 334000 | 350000 | 0.9403887658445301 | |
| 15 | FIBER | Seed | 8000 | 121000 | -0.10879993730972154 | |
| 6 | FURFURAL | Petiole | 90000 | 100000 | | |
| 14 | GAMMA-TOCOPHEROL | Seed | -- | -- | | |
| 7 | GLUCOSE | Seed | 14500 | 26500 | 0.1017379479496296 | |
| 8 | GLUTAMIC-ACID | Hay | -- | -- | | |
| 12 | GLYCINE | Plant | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|---|---|---|---|---|---|---|
| 6 | GUANIDINE | Seed | -- | -- | | |
| 1 | GUANINE | Seed | -- | -- | | |
| 5 | HEXANAL | Plant | -- | -- | | |
| 3 | HEXANOL | Plant | -- | -- | | |
| 6 | IRON | Seed | 14 | 85 | -0.3056949154022057 | |
| 16 | ISOEUGENOL | Plant | -- | -- | | |
| 3 | ISOLEUCINE | Hay | -- | -- | | |
| 20 | LECITHIN | Plant | -- | -- | | |
| 2 | LEUCINE | Hay | -- | -- | | |
| 13 | LIGNIN | Plant | 45000 | 255300 | 0.6921533291790163 | |
| 1 | LIGNOCERIC-ACID | Seed | -- | -- | | 1 |
| 27 | LINOLEIC-ACID | Seed | 6600 | 11880 | -0.8160445962099575 | |
| 15 | LUTEIN | Plant | -- | -- | | 1 |
| 4 | LYSINE | Hay | -- | -- | | |
| 1 | LYSOLECITHIN | Seed | -- | -- | | 1 |
| 65 | MAGNESIUM | Plant | 1100 | 2200 | -0.5793608934861032 | |
| 1 | MERCURY | Seed | 0.167 | 0.167 | 0.29845806205818587 | |
| 15 | METHIONINE | Plant | -- | -- | | |
| 1 | NEOSCHAFTOSIDE | Leaf | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|---|---|---|---|---|---|---|
| 2 | NEOXANTHIN | Plant | -- | -- | | |
| 39 | NIACIN | Seed | 40 | 65 | 0.6619614710877286 | |
| 3 | NICKEL | Seed | 1.632 | 1.632 | -0.5968299278537603 | |
| 1 | NICOTIANAMINE | Sprout Seedling | -- | -- | | |
| 18 | OLEIC-ACID | Seed | 4500 | 8100 | -0.9125134555320537 | |
| 9 | OXALIC-ACID | Seed | 46 | 46 | -0.665731071264505 | |
| 12 | P-AMINOBENZOIC-ACID | Plant | -- | -- | | |
| 25 | P-COUMARIC-ACID | Petiole | 0.9 | 0.9 | | |
| 13 | P-HYDROXY-BENZOIC-ACID | Plant | -- | -- | | |
| 13 | PALMITIC-ACID | Seed | 1800 | 3240 | -0.6327493366692233 | |
| 1 | PANGAMIC-ACID | Petiole | -- | -- | | |
| 11 | PANTOTHENIC-ACID | Seed | 6 | 17 | 0.026882779342101273 | |
| 4 | PHOSPHORUS | Plant | 600 | 3478 | -0.05317465610198457 | |
| 4 | PHOSPHORUS | Seed | 528 | 5588 | 0.0620074671795556 | |
| 14 | POTASSIUM | Plant | 12000 | 12600 | -0.6414067491432748 | |
| 14 | POTASSIUM | Seed | 1000 | 2431 | -0.891663999037337 | |
| 43 | PYRIDOXINE | Seed | 4 | 10 | 0.9653072991634226 | |
| 1 | QUINIC-ACID | Leaf | -- | -- | | |
| 15 | RIBOFLAVIN | Seed | 0.5 | 0.7 | -1.0823929498985099 | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|---|---|---|---|---|---|---|
| 1 | SCHAFTOSIDE | Leaf | -- | -- | | |
| 1 | SERINE | Plant | -- | -- | | |
| 14 | SHIKIMIC-ACID | Leaf | -- | -- | | |
| 1 | SILICIC-ACID | Leaf | -- | -- | | |
| 1 | SODIUM | Seed | 90 | 939 | 0.7748692106587315 | |
| 1 | SODIUM | Plant | 3500 | 3500 | -0.11033102759800023 | |
| 10 | SQUALENE | Seed | -- | -- | | |
| 5 | STARCH | Seed | 722000 | 749000 | 1.7770468558505592 | |
| 8 | STEARIC-ACID | Seed | 150 | 270 | -0.5595319571095223 | |
| 12 | STIGMASTEROL | Juice | -- | -- | | |
| 14 | SUCROSE | Seed | 3000 | 4800 | -0.6296023412117899 | |
| 14 | SULFUR | Plant | 1000 | 1000 | -1.215569358934881 | |
| 31 | THIAMIN | Seed | 2.2 | 3.9 | -0.6403921875557287 | |
| 4 | THREONINE | Hay | -- | -- | | |
| 2 | TRANS-ACONITIC-ACID | Shoot | -- | -- | | |
| 9 | TRICIN | Petiole | 0.066 | 0.066 | | |
| 9 | TRICIN | Plant | -- | -- | | |
| 15 | TRIGONELLINE | Sprout Seedling | -- | -- | | |
| 1 | TRIMETHYLAMINE | Seed | -- | -- | | |

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|---|---|---|---|---|---|---|
| 8 | TYROSINE | Plant | -- | -- | | |
| 3 | VALINE | Hay | -- | -- | | |
| 24 | VANILLIC-ACID | Plant | -- | -- | | |
| 2 | VIOLAXANTHIN | Plant | -- | -- | | |
| 1 | XANTHINE | Plant | -- | -- | | |
| 3 | XANTHOPHYLL | Plant | -- | -- | | |
| 3 | XYLOSE | Seed | -- | -- | | |