## Protein, Calories, Amino Acids In A Plant Based Diet

- 1. This chart of whole foods, commonly found in veggie diets, will help you to combine foods for complete protein
- 2. It's easy to get enough protein, without fuss, if you eat a wide variety of whole foods over the course of a day
- 3. That's assuming you get enough calories for your size, age, activity level, pregnancy, lactation, etc.

Hint: eat more high calorie whole foods if you're underweight. Vegans often need more fat than they they think

- 4. \*'Cooked' means cooked with water, no fat added.
- 5. Fields where data is unknown are left blank. All data is approximate, and can vary in practice
- 6. Measurements:100 grams is approximately .6 cup, or 1/2 2/3 of a cup.
- 7. \* means a rough estimate
- 8. Actual serving sizes will vary according to the type of food and who's eating.

Example serving sizes: 12 almonds, 1 Tblsp Miso, 1 Tblsp gr. flax seed, 1/2 - 1 cup of cooked grains or beans

9. Essential Amino Acids: nine protein building blocks which the body can't make, and must get from food:

Hystidine (HYS), Isoleucine (ISO), Leucine (LEU), Lysine (LYS), Methionine (MET), Phenylalanine (PHE),

Tryptophan (TRP), Threonine (THR), Valine (VAL)

10. Limiting Amino Acids: not enough present to balance the other essential amino acids and make 'complete' protein.

## For More Information, Read The Following Articles:

How To Get Enough Protein In Your Veggie Diet

How Much Protein and Calories Do We Really Need?

| Basic Whole Foods              | Limiting       | Serving           | Calories    | Gr Protein | Gr Protein | Protein  | Combine |
|--------------------------------|----------------|-------------------|-------------|------------|------------|----------|---------|
| Commonly Found in              | Amino          | Size              | Per         | Per        | Per 100 g  | as % of  | With    |
| Vegetarian or Vegan Diets      | Acids          |                   | Serving     | Serving    |            | Calories |         |
|                                |                | T                 |             |            |            |          |         |
| Legumes: Beans and Lentils, C  | ooked Unless C | Otherwise Noted   |             |            |            |          |         |
| Lentils                        | MET-TRP        | I1 Cup            | 115         | 17.13      | 8.97       | 24.3     | grains  |
| Mung Bean                      | TRP            | 1 Cup             | 105         | 13.57      | 7.54       |          | nuts    |
| Chick Pea (Garbanzo Bean)      | MET-TRP        | 1 Cup             | 180         |            | 9.54       |          | seeds   |
| Black Eyed Pea (Cow Pea)       | ISO            | 1 Cup             | 115         | 12.98      |            |          | veggies |
| Black Bean                     | MET-LEU-TRP    | 1 Cup             | 115         | 12.49      |            |          | 1099.00 |
| Fava Bean (broad bean)         | 1              | 1 Cup             | 109         | 12.85      | 7.56       |          |         |
| Kidney Bean                    | 1              | 1 Cup             | 126         | 14.83      | 8.62       |          |         |
| Lima Bean (butter bean)        | TRP            | 1 Cup             | 113         | 10 g       |            | 20       |         |
| Miso (fermented soybean paste) |                | 1 Tblsp           | 199         | 2 g        |            |          |         |
| Pigeon Peas                    |                | 1 Cup             | 170         | 9.12       | 5.96       |          |         |
| Pinto Beans                    | MET-TRP        | 1 Cup             |             | 15         | 0.00       |          |         |
| Soybean (mature)               | MET            | 1 Cup             | 172         | 29.77      | 16.54      | 39.4     |         |
| Soymilk                        | VAL            | 1 Cup             | 45          | 6.62       | 2.7        | 30       |         |
| Split Peas                     | MET-TRP        | 1 Cup             |             |            |            |          |         |
| Tempeh (fermented soybean)     | VAL            | 3 oz              |             | 15 g       | 17         | 36       |         |
| Tofu, extra firm w/nigari      | MET            | 1/2 cup           | 151         | 20         |            | 61.2     |         |
| TVP                            | MET            | 1/2 cup           |             | 16         |            |          |         |
|                                |                |                   |             |            |            |          |         |
| Seeds, Raw                     |                |                   |             |            |            |          | Combine |
| Flax Seeds (whole)             | LYS-ISO        | 1 Tblsp           | 44          | 1.5 g      | 18.29      | 12.5     | With    |
| Hemp Seeds                     | VAL            | 1 Tblsp           |             |            | 29.9       |          | grains, |
| Pumpkin Seeds                  | LYS-ISO        | 1 Tblsp           | 46          | 2 g        | 24.54      |          | legumes |
| Sesame Seeds (whole)           | LYS            | 1 Tblsp           |             | 1.6 g      | 17.73      | 7.9      | veggies |
| Sunflower Seeds (hulled)       | LYS            | 1 Tblsp           | 46          | 1.8 g      | 20.78      | 19.8     | fruit   |
| Tahini (sesame seed paste)     | LYS            | 1 Tblsp           | 47          |            | 17         |          |         |
|                                |                | T                 |             |            |            |          |         |
| Nuts, Raw                      |                |                   |             |            |            |          | Combine |
| Almond                         | ISO-VAL        | 1/2 oz (12        |             | 3 g        | 16.8       | 9.6      | With    |
| Brazil Nut                     | ISO-LYS        | 02 (12            |             | <u>0 g</u> | 14.8       | 7.9      | grains, |
| Cashews                        |                | 1 Oz.             |             | 2.5 g      | 17.4       | 11.1     | legumes |
| Coconut                        | LYS            | 1                 |             |            | 6.6        | 3.9      | veggies |
| Hazelnut                       | THR-ISO        |                   |             |            | 19.9       | 11.7     | fruit   |
| Peanut Butter                  | LYS-TRP-MET    | 1 Tblsp           | <del></del> | 4 g        | 10.0       | 11.7     | nuit    |
| Peanuts                        | LYS-TRP-MET    | 1 oz.             |             | 7 g        |            |          |         |
| Pecan                          | VAL            | 1.02.             |             | 7 9        | 6.25       | 7.8      |         |
| Pistachio                      | LYS-THR        |                   |             |            | 18.9       | 11       |         |
| Walnut                         | ISO-LYS        | 1/2 oz (7 halves) |             |            | 15.6       | 8.2      |         |
| - Tania                        | IOO-L10        | 112 02 (1 Haives) |             |            | 13.0       | 0.2      |         |

| Grains, Cooked Unless Otherv     | vise Noted    | Т               |  |       | — т        |       | T               |
|----------------------------------|---------------|-----------------|--|-------|------------|-------|-----------------|
| Amaranth                         | Tise Noted    | <del> </del>    | <del>                                     </del> |       |            |       | Combine         |
| Barley - Hulled                  | ISO-LYS-THR   | 1 cup           | -  | 3.64  | 2.25       | 11.8  | Combine         |
| Barley - Pearled                 | 100-LTO-TTIK  | 1 cup           | 193  | 3.55  | 2.25       | 11.0  |                 |
| Bulgar (Parboiled Wheat)         | LYS           | 1 cup           | 151  | 5.61  | 3.06       | 11.4  | legumes<br>nuts |
| Brown Rice                       | VAL           | 1 cup           | 216  | 5.03  | 2.56       | 7.2   |                 |
| Buckwheat Groats (Kasha)         | ISO-LYS       | 1 cup           | 155  | 5.68  | 3.37       | 1.2   |                 |
| Cornmeal whole cooked            | LYS-TRP       | 1 cup           | *180   | 4.42  | 1.84       | 7.3   | veggies         |
| Couscous cooked                  | LIGIN         |                 | 176  |       |            | 1.3   | fruit           |
| Farina (cream of wheat cereal)   | LYS-ISO       | 1 cup           | 1/0  | 5.95  | 3.79       |       |                 |
| Japanese Soba Noodles            | TRP-MET       |                 | 140  | 3.11  | 1.24       |       |                 |
| Kamut cooked                     | LYS-TRP-MET   | 1 cup           | 113  | 5.77  | 3.06       |       |                 |
| Millet cooked                    | ILYS-ISO      | 1 cup           | 251  | 11.25 | 6.1        |       |                 |
| Oat Bran                         | LY5-15U       | 1 cup           | 207  | 6.09  | 3.5        | 10.2  |                 |
| Oats cooked                      | 100 170       |                 |  |       |            |       |                 |
|                                  | ISO-LYS       | 1 cup           | *200   | 4.98  | 2.13       | 12    |                 |
| Quick Rice (Parboiled)           | ISO-LYS       | 1 cup           | 194  | 4.6   | 2.66       | 7.6   |                 |
| Quinoa cooked                    | PHE-THR       | 1 cup           | 222  | 8.14  | 4.4        | 12.6  |                 |
| Pasta-Wheat, cooked, enriched    |               | 1 cup           | 221  | 8.12  |            |       |                 |
| Rice Noodles cooked              | 100           |                 | 192  | 1.6   |            |       |                 |
| Seitan (Wheat Gluten)            | ISO           | 3 oz            | 120  | 22    | 75.58      |       | 110             |
| Teff cooked                      | LYS-TRP       | 1 cup           | 249  | 9.76  |            |       |                 |
| Triticale Flour (wh gr) (dry)    |               | 1 cup           | 439  | 17.3  |            |       |                 |
| Wheat Bran (dry)                 |               | 1 cup           | 125  | 9.02  | 15.55      | 13.6  |                 |
| Wheat Germ (dry)                 | LYS-TRP       | 1 cup           | 414  | 26.62 | 23.15      |       |                 |
| Wheat Rolled cooked              | LYS           | 1 cup           |  | 3.7   | 1.53       |       |                 |
| Wheat sprouted                   | LYS           | 1 cup           | 214  | 8.09  |            |       |                 |
| White Flour (wheat) (dry weight) | LYS-THR       | 1 cup           | *480   | 12.91 | 9.71       |       |                 |
| White Rice cooked                | ISO-LYS       | 1 cup           | 194  | 4.2   | 2.66       | 7.1   |                 |
| Whole Wheat Bread                | LYS           | 1 slice         |  | 4 q   |            |       |                 |
| Whole Wheat Flour (dry weight)   | LYS-ISO       | 1 cup           | 407  | 16.44 | 13.7       | 13.1  |                 |
| Wild Rice cooked                 |               | 1 cup           | 166  | 6.54  | 3.99       |       |                 |
|                                  |               | 1               |  |       | 5.00       |       |                 |
| Vegetables With A High Protein   | Content Cooke | ad Uniose Othon | vice Noted                                       |       |            |       | Cambina         |
| Asparagus                        | ILYS          | 1/2 Cup         | 10   | 2.16  | 2.1        | 30.1  | Combine         |
| Avocado                          | 1210          | 1 Medium        | 10   | 2.10  | 2.1        | 30.1  | With            |
| Beet Greens                      |               | 1/2 Cup         | 20   | 3.7   | 2.57       |       | nuts            |
| Broccoli                         | MET           | 1/2 Cup         | 25   | 3.2   | 4.29       | 20.4  | seeds           |
| Chard                            | IVIL I        | 172 Cup         | 17   |       |            | 28.4  | grain           |
| Collard Greens                   |               |                 |  | 1.15  | 1.88       |       | legumes         |
| Corn on the cob                  |               | 1               | 25   | 1.9   | 2.11       |       |                 |
| Corn Kernels Frozen              | ļ             | 1 ear           | 48   | 1.5   | 3.5        |       | ****            |
| Edamame (green soybean pods)     | INACT.        | 1/2 Cup         | 60   | 2.05  | 3.02       |       |                 |
| Eggplant                         | IIVIE I       | 1/2 Cup         | 65   | 6     | 10.25      |       |                 |
| Green Peas                       | MET TOD       | 1/2 Cup         |  |       | 4.6        | 25.5  |                 |
| Hubbard Squash                   | MET-TRP       | 1/2 Cup         | 61   | 3.91  | 4.47       |       |                 |
|                                  | MET TOD       | 1/2 Cup         | 51   | 2.5   | 2.4        |       |                 |
| Kale                             | MET-TRP       | 1/2 Cup         | 18   | 1.25  | 1.9        |       |                 |
| Mung Bean Sprouts                | MET-TRP       | 1/2 Cup         | 11.5   | 1.26  | 2          |       |                 |
| Mushroom (cloud - dried)         | ISO           | 1/2 Cup         | 40   | 1.3   | 9.25       |       |                 |
| Mushroom (Crimini - raw)         | MET-TRP       | 1/2 Cup         | 12   | 1.09  | 2.5        |       |                 |
| Mushroom (oyster - raw)          | MET-TRP       | 1/2 cup         | 33   | 2.45  | 3.31       |       |                 |
| Mushrooms (Portobella - grilled) | MET-TRP       | 1/2 Cup         | 21   | 2.53  | 4.27       |       |                 |
| Mustard Greens                   | MET-TRP       | 1/2 Cup         | 10.5   | 1.58  | 2.26       |       |                 |
| Potato Flour (dry)               | LYS-TRP       | 1 Cup           | 571  | 11.04 | 6.9        |       |                 |
| Potato peeled                    | LYS-TRP       | 1 Medium        |  |       | 1.3        | 4.2   |                 |
| Potato w/skin baked              | LYS-TRP       | 1 Medium        | 161  | 4.32  | 2.5        | 6.9   |                 |
| Salsify                          |               | 1/2 Cup         | 46   | 1.6   | 2.73       |       |                 |
| Spinach                          | MET-ISO       | 1/2 Cup         | 21   | 2.62  | 2.97       | 25.66 |                 |
| Spirolina (dried)                | MET           | 1 Tblsp         | 20   | 4.02  | 3.5        |       |                 |
| Sugar Snap Peas                  | 1             | 1/2 Cup         | 33.5   | 2.61  | 3.27       |       |                 |
| oagai onap i cas                 |               |                 |  |       |            |       |                 |
| ougur onap r eas                 |               |                 |  | 1     | 1          | 1     |                 |
|                                  |               |                 |  |       |            |       | Combine         |
| Fruit:                           | ISO           |                 |  |       | 2.7        | 24    | Combine         |
| Fruit:<br>Dates (dried)          | ISO           |                 |  |       | 2.7        | 3.1   | With            |
| Fruit:                           | ISO<br>ISO    |                 |  |       | 2.7<br>1.2 | 6.1   | With legumes    |
| Fruit:<br>Dates (dried)          |               |                 |  |       |            | 6.1   | With            |