

Saving the Seeds



A seed savers' guide for the diversity of
vegetables, flowers and tubers of
Forest Gardens in the Malnad, Karnataka

Vanasree

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Introduction

Seeds Vegetables of the Malnad



Amaranth / Haruve

AMARANTHACEAE

Description:

Annual
Reproduction by seeds
Cross-pollinated by wind
800 seeds/g
% germination?



Choose your plants:

Amaranth is wind-pollinated, so they will cross very easily with others if less than 1500 feet apart. Choose well the plant that you decided to save the seed and rogue out the close inferior individuals before flowering.

Saving the seeds:

Seeds mature from bottom to top of the plant. So, each day, the mature heads can be harvested by shaking into a paper bag. But you can also harvest your entire crop by

cutting the heads when almost all the seeds are ripe.

Drying the seeds:

Dry them for one week in a dry, shady and airy place. The heads can be hanged upside down above a cover.

Cleaning the seeds:

Wearing gloves to make the seeds fall down from the heads into a bowl (flowers can be very stiff and sharp!). The heads can first be beaten with a stick. Toss them until the light debris will concentrate on the top and easily be blown away.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds are usually long-lived (5years).

Remarks:

Vanastree's seeds:

- Green Amaranth / Bili Haruve (*Amaranthus viridis*)
- Red Amaranth / Kempu Haruve (*Amaranthus cruentus*)
- Amaranth bicolour / Bannada Haruve (*Amaranthus bicolor*)
- Amaranth *Rajgira* / Rajgira Haruve (*Amaranthus cruentu*)

Bean / Avare

LEGUMINOSAE



Description:

Annual / Perennial
Cross-pollinated by insects and wind
Reproduction by seeds
1-20 seeds/g
% germination?

Choose your plants:

The cross-pollination occurs frequently between different varieties of the same species. Isolate different varieties by planting them at least 300 ft apart. You can also cover the bean bushes with a mosquito net but it is almost impossible with the climbers. Choose the finest individual plants and rogue out those with leaf discolouration, bacterial blight or any other sign of disease. Also avoid consuming the beans of a selected plant.

Saving the seeds:

It is better to leave the pods on the plant to dry. Then the pods will be harvested manually (when they are dry and yellow/brown). However, if the weather is wet, you can pull the entire plant with fully mature but still green pods.

Drying the seeds:

Hang the plants upside down in a dry and airy place to achieve the dryness. Let the seeds dry for at least one or two weeks. You can test the dryness by biting the beans with a gentle pressure, no impression should be made.

Cleaning the seeds:

Pod out manually the beans from their shells. You can also hang them in a bag and beat them with a stick. If the seeds need additional cleaning, you can winnow them by pouring the beans from one basket to another during a stiff breeze.

Storing the seeds:

Usually people store the seeds inside the natural shells and clean them just before using the seeds. However if the weather is too wet, or if a fungus attack occurs, it is better to remove them from their shells and clean them. Store the seeds or the shells in a dry and cool place in an airtight and dark container.

Storage in clay pots provides coolness. Seeds are viable five years later.

Remarks:

To prevent weevil damage, that can totally destroy the stored seeds, freeze the dry seeds in an airtight container for several days. When you removed the seeds from the freezer, let the container closed and set out one day to reach the room temperature and avoid condensation and moisture.

Vanastree's seeds:

- Bean (Shrub) / Avare (*Phaseolus sp.*)
- Bean 30 Day / Thingala Avare (*Phaseolus vulgaris*)
- Bean Angikase / Angikase (*Phaseolus vulgaris*)
- Bean Hyacinth / Bhat Avare (*Dolichos lablab*)
- Bean Lima / Kidney Avare (*Phaseolus lunatus*)
- Bean Rajma (*Phaseolus vulgaris*)
- Bean Meter / Metre Avare (*Vigna unguiculata var. Sesquipedalis*)
- Bean Sword / Kathi Avare (*Canavalia gladiata*)
- Bean Velvet / Verver Avare (*Mucuna pruriens*)
- Bean Winged / Mathi Avare (*Psophocarpus tetragonolobus*)

Brinjal / Badane

SOLANACEAE

Description:

Perennial
Reproduction by seeds
Cross-pollinated by insects
200 seeds/g
% germination?



Choose your plants:

With insect activity, a small amount of crossings between varieties can occur. To avoid this, bag the flowers with paper bags before they open and remove as soon as the little fruit is set. Do not forget to label these fruits. Select the fruits of your most vigorous and healthy plants, but from separate bushes of the same variety. However the best option is to cover the selected plants with a mosquito net before flowering time.

Saving the seeds:

Choose the first fruits of those plants and let them grow far past the edible stage (about to fall off the plant). Purple brinjals become a dull purplish brown, green fruits turn yellowish green and white fruits turn golden.

Cleaning the seeds:

Cut the bottom section of a brinjal into 0.5 inches squares (this part contains the greater

density of seeds). Put them in a blender and pour in a bit of water. Whizz them up at slow speed. You can also do it with a knife for small quantities. Dump the mash into a bowl and add fresh water. Stir the mixture: let the good seeds settle and pour off the debris until only good seeds remain in the bottom. Wash them again in water.

Drying the seeds:

First, dry the seeds on a towel and then spread them thinly onto an areca leaf. Stir twice daily to ensure even drying. Try to dry them as quick as possible because the seeds are able to germinate very fast when they are moist at warm temperatures. Then, place them in a paper bag and hang them for a further couple of weeks.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds are viable five years later.

Remarks:

You can also grow one variety of chilly and tomato together under this mosquito net.

Vanastree's seeds:

- Brinjal (Shrub) / Badane (*Solanum melangena*)
- Brinjal Cholu / Cholu Badane
- Brinjal Daas / Daas Badane
- Brinjal Hittalu / Hittalu Badane
- Brinjal Metre / Bonda Badane
- Brinjal Mulugai / Mulugai Badane
- Brinjal Mussuku / Mussuku Badane
- Brinjal Vadhira Gulla / Vadhira Gulla Badane

Chilli & Capsicum / Menasu

SOLANACEAE

Description:

Annual / Perennial
Reproduction by seeds
Cross-pollinated by insects
150 seeds/g
% germination?



Choose your plants:

Insect cross-pollination is common, especially by honeybees and tiny sweet bees. Chilli pollen is dominant over capsicum pollen, leading to hot surprises in the next generation! To avoid this, isolate the different varieties of at least 150 feet. A tall crop in between the plants can also break the bee's flight path. But the best solution is to identify the ready-to-open flowers in the evening and bag the branches with a paper bag for one week. Do not forget to mark the selected branches for the harvest. The mosquito net cover is also a good option for bigger quantities. Always choose as many different plant of that variety as possible, and mix their seeds at harvest time.

Saving the seeds:

Choose the well formed and healthy fruits of those branches and harvest them when they are fully mature, soon after the final colour.

Cleaning the seeds:

Usually people store the seeds in the chilli fruit, but in case of wet weather it is better to remove the seeds before storage. Break or cut the flesh without damaging the internal core. The stem can be left attached to the core and be used as a handle. With the fingers or with the blade of a small knife, scrape the seeds off of the core into a bowl. Seeds do not have to be washed.

Drying the seeds:

Dry the seeds on a paper or an areca leaf away from direct sunlight, until the seeds break when folded (a few days). The seeds stored in the fruit can be dried in the full sun because the skin protects them. If the seeds bend instead of breaking, additional drying is necessary.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for four years.

Remarks:

Do this in a well-ventilated room because of the strong fumes and always wear rubber gloves when working with hot chillies. Make sure that the utensils are washed thoroughly afterwards.

Vanastree's seeds:

- Chilli (Shrub) / Menasu (*Capsicum annuum*)
- Chilli *Bugadi* / Bugadi Menasu
- Chilli *Hittalu* / Hittalu Menasu
- Chilli *Black* / Kari Menasu
- Chilli *Kutumba* / Kutumba Menasu
- Chilli *Majjige* / Majjige Menasu
- Chilli *Needle* / Sooji Menasu
- Chilli *Melmukhada* / Melmukhada Menasu
- Chili *Jasmine* / Mallige Menasu
- Capsicum / Dollu Menasu

Cucumber / Savate

CUCURBITACEAE



Description:

Annual
Reproduction by seeds
Cross-pollinated by insects
40 seeds/g
% germination?

Choose your plants:

If you grow more than one variety, prefer the time or distance isolation to keep pure seeds. You can also hand-pollinate each variety to avoid the cross between different cucumbers but the task is not easy as the flowers are very small (See Annex: Hand pollination of Cucurbitaceae). Always choose the healthiest plants.

Saving the seeds:

Select fruits from different plants and leave them to fully ripen (past the edible stage) on the vine. The cucumbers will be large and beginning to soften. White varieties turn pale yellow, green ones turn golden to brown. You may have a slightly better number of viable seeds if you kept the fully mature fruit for about two weeks after cutting from the vine.

Cleaning the seeds:

Open the cucumbers and scoop the seeds into a bowl. The seeds are encased in a gelatinous sack that is easily removed by fermenting the

seeds. Add as much water as seeds but not too much to avoid slowing the fermentation. Then let the bowl to ferment in a protected and shady location for about three days. Fermentation is complete when most of the seeds have settled to the bottom and debris are floating on top. Some mold may form over the top of the mixture; stir the mass twice a day. Wash with fresh water to eliminate the floating wastes. The fermentation will also kill off any seed-borne diseases.

Drying the seeds:

First dry the seeds with a towel, and spread them out thinly on an areca leaf to dry for a week or ten days. Move them the first day to avoid them to stick together when drying.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for four years.

Vanastree's seeds:

- Cucumber *Kadagolu* / Kadagolu Savate (*Cucumis sativus*)
- Cucumber *Maggay* / Maggay (*Cucumis melo*)
- Cucumber *Spiny* / Mullu Savate (*Cucumis sativus*)
- Cucumber *Yeray* / Yeray Savate (*Cucumis sativus*)

Gourd / Burude

CUCURBITACEAE



Description:

Annual
Reproduction by seeds
Cross-pollinated by insects
% germination?

Ash gourd: 10-15-20 seeds/g 3 years
Bottle gourd: 5-30 seeds/g 5 years
Bitter gourd: 5-12 seeds/g 5 years
Ridge/Sponge gourd: 20 seeds/g 5 years

Choose your plants:

As the gourds are very easily cross-pollinated by insects, hand pollination is required to allow the purity of the seeds (See Annex: Hand pollination of Cucurbitaceae).

Ash Gourd:

Leave the gourd on the vine as long as possible. Scoop out the seeds, wash them with water and dry them on a screen in a dry and airy place for a couple of days.

Bottle Gourd:

Pick the gourds when they sound hollow with a tap, when their stem changes from green to brown. You can also wait until the vines dry out. Place the gourds in a dry, cool and well-ventilated location until completely dry (few months). The shell and the contents of the gourds dry so completely that the seeds will rattle when the gourd is shaken vigorously. Cut a small opening in the stem or the blossom end and remove the seeds by shaking. Pull them free of any dry flesh. Seeds that bend instead of breaking in half need further drying.

Bitter Gourd:

Allow the fruits to ripen until they become yellow-orange and soft. They will split open, dramatically displaying rows of shiny blood-red seeds. These should be scooped out and soaked for a day to get rid of the red flesh. Then they need to be dried before storing.

Ridge Gourd – Sponge Gourd:

When the fruit dries on the vine, the skin cracks and the seeds are held in the dry fibre. A little shaking gives a bountiful harvest of seeds that are ready for storing.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness.

Remark:

Usually people store the seeds inside the fruit until the next season but to avoid the fungus attack in weather climate and extend the shelf life, it is better to remove them as explained above.

Vanastree's seeds:

- Ash Gourd / Boodhu Kumbala (*Benincasa hispida*)
- Bitter Gourd *Light Green* / Bili Hagala (*Momordica charantia*)
- Bitter Gourd *Green* / Hasiru Hagala (*Momordica charantia*)
- Bitter Gourd *Mada (Wild)* / Mada Hagala
- Bitter Gourd *Sparrow* / Gubbi Hagala (*Momordica charantia*)
- Bottle Gourd *Big* / Udha Halkumbala (*Lagenaria siceraria*)
- Bottle Gourd *Small* / Sanna Halkumbala (*Lagenaria siceraria*)
- Bottle Gourd *Tamboora* / Tamboora Halkumbala (*Lagenaria siceraria*)
- Ridge Gourd *Big* / Udha Heere (*Luffa acutangula*)
- Ridge Gourd *Small* / Gidda Heere (*Luffa acutangula*)
- Sponge Gourd / Bol/Thuppada Heere (*Luffa cylindrical*)

Lady's Finger / Bende

MALVACEAE

Description:

Annual
Reproduction by seeds
15-20 seeds/g
% germination?

**Choose your plants:**

Cross-pollination by insects can occur, so separate your varieties by at least 100 feet. If several varieties are flowering at once, you can bag (with a mosquito net or a paper bag) the flowers about to open in the evening. Do not forget to tag the chosen pregnant flowers with a ribbon and remove the bag the following day.

Saving the seeds:

A light harvest early in the season will not disturb a lot the availability of pods for seed production. Harvest when the pods are

brown and dry, the seeds should start to rattle.

Cleaning the seeds:

Wearing gloves, you can easily open the pods from their apex in the way bananas are peeled. The grey and hard seeds will roll out in a bowl. You can also put the pods into a feed sack and jog in place of it on a hard surface. Once the broken pods are open and the seeds free, removed the debris by winnowing the seeds.

Drying the seeds:

Usually there is no need to dry more the seeds.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for three years.

Remarks:

Usually people store the seeds inside the fruit until the next season but to avoid the fungus attack in weather climate and extend the shelf life, it is better to remove them as explained above.

Vanastree's seeds:

- Lady's Finger (Shrub) / Bende (*Abelmoschus esculentus*)
- Lady's Finger Green / Bili Bende
- Lady's Finger Red / Kempu Bende
- Lady's Finger Sparrow / Gubbi Bende
- Lady's Finger Sri Lanka / Sri Lanka Bende
- Lady's Finger Yelu Yelay / Yelu Yelay Bende
- Lady's Finger Oxhorn / Yethina Kodu Bende

Maize / Musukina Jola

GRAMINEAE



Description:

Annual
Reproduction by seeds
Cross-pollinated by wind and insects
3-8 seeds/g
% germination?

Choose your plants:

All maize varieties are outcrossing plants that are wind-pollinated and will cross easily with each other. So to avoid crossing you can isolate your varieties by distance (as much as possible, but at least 300 feet) and make some barriers to stop the pollen flight with

buildings, trees, or tall crops like amaranth. Time isolation is also possible to avoid hand-pollination. Choose an early and a late variety to plant in same time, or plant two varieties a month or more apart. The aim is to avoid the mix of pollen between varieties of maize. Corn is sensible to inbreeding depression. It means if you save only few seeds, the plants will be shorter, the yield lower, the harvest later and the sensibility to diseases higher. So save at least five to fifteen cobs from different plant for seeds. Also rejuvenate the variety by planting with your seeds new blood from the same variety a year or two down the line.

Saving the seeds:

Choose the earliest and best cobs of the healthiest plants and mark them. They are usually left on the stalks until completely dry.

Drying the seeds:

If it is not possible because of insects or animals damage or weather conditions, you can harvest the mature cobs, hunk and dry them under shelter.

Cleaning the seeds:

Rub two cobs together to remove the seeds from both. Winnow out the seeds to eliminate the silk or cob debris. Kernels that are not completely formed should also be discarded.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for two years.

Vanastree's seeds:

- Maize / Musukina Jola (*Zea mays*)

Pumpkin / Kumbala

CUCURBITACEAE



Description:

Annual
Reproduction by seeds
Cross-pollinated by insects
2-4-5 seeds/g
% germination?

Choose your plants:

Pumpkins are insect-pollinated plants and different varieties within the same species will cross easily. So, to avoid crossings between pumpkins proceed to hand-pollination (See Annex: Hand pollination of Cucurbitaceae).

Saving the seeds:

Fruits must be grown until fully mature: shell should not be dented by fingernail. The number of available seeds is higher when the pumpkins are left to sit for three weeks or longer because of the seeds maturation inside the fruit.

Cleaning the seeds:

Cut open the fruit and remove the seeds. Rinse them in a colander under a stream of water and remove the debris. If flesh remains attached, rub the seeds in a wire strainer running water to loosen it.

Drying the seeds:

Then spread the cleaned seeds onto an areca leaf to dry in a airy and shinny place for about one week.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for six years in average.

Remarks:**Vanastree's seeds:**

- Pumpkin (Shrub) / Kumbala (*Cucurbita maxima*)
- Pumpkin Long / Uddha Kumbala
- Pumpkin Round / Uroota Kumbala
- Pumpkin Summer / Nella Gove

Purslane / Goli Soppu

PORTULACACEAE

Description:

Annual
Reproduction by seeds
Cross-pollinated by insects
2500-3000 seeds/g
% germination?

**Choose your plants:**

If more than one variety grow in your garden, particularly the improved and the wild varieties, isolate them during the pollination time or separate them by distance (450 feet).

Saving the seeds:

You can lightly pick the purslane for eating without almost any decrease in the amount of seeds. Yellow blossoms appear on the tips of each branch of the plant and quickly develop into capped seedpods. The top portion or lid of each cap falls off as the seeds mature. The seedpods mature and release their seeds while the plants are still green and continue to grow. The pods shatter very easily, so seeds must be collected on a regular basis.

Drying the seeds:

Leave the seeds to dry in a paper bag for few days.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for six-seven years.

Remarks:**Vanastree's seeds:**

- Purslane / Goli Soppu (*Portulaca oleracea*)

Spinach / Palaka

CHENOPODIACEAE

Description:

Annual
Reproduction by seeds
Cross-pollinated by wind
70-80-100 seeds/g
% germination?

**Choose your plants:**

Choose the healthiest spinaches to save your seed. Avoid harvesting the outer leaves if you do not want to decrease the quantity and quality of seeds. Usually, spinach seeds are dried in the field because much easier to harvest directly from the plants. The stalk

should be still green and the seed heads are brown and hard.

Saving the seeds:

Starting at the bottom of the plant, strip off the seeds and leaves in an upward motion and let them fall into a basket. Wear gloves because seeds can be abrasive to the hands.

Drying the seeds:

If seeds and leaves are still damp, let them dry for several additional days away from direct sunlight.

Cleaning the seeds:

Seeds and leaves can be winnowed in order to eliminate of the debris and remaining leaves.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds remain viable for five years.

Remarks:**Vanastree's seeds:**

- Spinach / Palaka (*Spinacia oleracea*)
- Spinach Malabar / Basalay Soppu
- Spinach Wild / Kadu Basalay

Tomato

SOLANACEAE

Description:

Annual
Reproduction by seeds
300-400 seeds/g
% germination?



Choose your plants:

Natural cross-pollination is possible so it is recommended to plant the different varieties in block shape for each and save seeds from the central plants. Planting a tall row of beans, or other climbers, in between rows of different varieties will almost eliminate the risk of hybridization. But the safest way is to bag the individual flowering branches with a mosquito netting bag or a paper bag. You can remove these bags after the fruits setting and mark the branches. The earliest and more attractive plants of each variety should be marked, staked and inspected during the growing season for diseases and immunity from pest attacks.

Saving the seeds:

Fruits of the lower three hands of a plant are best for seed, but you can also collect the

others. Allow the fruits to ripen just beyond the eating stage and pick them.

Cleaning the seeds:

Wash the tomatoes, then cut the fruits across the middle, not through the stem and blossom ends. Squeeze the seeds and surrounding gel into a bowl. This gel contains chemicals that inhibit seed germination. Let the mixture to ferment for one to three days. The fermentation process should stop when a layer of mold completely covers the surface. It permits to remove the gel sack, but also to kill many seed-borne tomato diseases. Scoop the foam off the top, add enough water to double the mixture and stir it vigorously. As the good seeds will settle to the bottom, pour off the debris and hollow seeds. Repeat until only cleaned seeds remained. You can also use a strainer and wash the seeds under running water with your fingers.

Drying the seeds:

Use a towel to remove as much moisture as possible and spread the seeds on an areca leaf to dry in a shady and airy place. To prevent the seeds bunching together, stir at least twice a day.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Storage in clay pots provides coolness. Seeds may be stored for up to four years.

Vanastree's seeds:

- Tomato Shrub (*Lycopersicon lycopersicum*)
- Tomato Long
- Tomato Round
- Tomato Cherry (*Lycopersicon pimpinellifolium*)

Others Seeds Vegetables



Beet Root

CHENOPODIACEAE – *Beta vulgaris*

Description:

Biennial
Reproduction by seeds
Cross-pollinated by wind and insects
50-100 seeds/g
% germination?

Choose your plants:

As the beet root is a biennial, the easiest way to produce seeds is the seed-to-seed method. The seed is planted and the roots that are left in the ground over the winter produce seed the following year. To encourage larger seeds balls on the lower part of the branches, the top and side branches should be tipped.

Saving the seeds:

Seed stalks are usually harvested when the majority of the seeds clusters have turned light brown. The fully mature seeds can be progressively stripped from the plant as they mature.

Drying the seeds:

The entire seed stalk can also be cut when the majority of the seeds are mature, and then hung to dry further.

Cleaning the seeds:

The dried seed stalks can be threshed with a flail, but it is faster to jog in place on a bag of dried stalks for large quantities. Then you can winnow the seeds to eliminate the remaining pieces of stems and leaves.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for four years.

Remarks:

Each seed ball contains from two to six individuals seeds. So if you do not want to thin the seedling, you can break the clusters placing the seeds in a bag and gently rolling it with a rolling pin. Adjust the pressure until the seed balls are broken apart but not crushed.

Broccoli - Cabbage – Cauliflower / Kose

BRASSICACEAE – *Brassica oleracea* var. *italica* / *capitata* / *botrytis*

Description:

Biennial
Reproduction by seeds
Cross-pollinated by insects
Broccoli: 300 seeds/g
Cabbage: 250 seeds/g
Cauliflower: 500 seeds/g
% germination?

Choose your plants:

Broccoli, cabbage and cauliflower can cross with each other, so isolate well your plants. They also need at least six plants for pollination because of self-incompatibility. Always choose healthy plants and do not harvest the heads for food. As they are biennial, the seeds collection will happen during the next summer.

Saving the seeds:

Seedpods must develop fully while still attached to the growing plant. As the seeds approach maturity, the pods begin to dry out and turn light brown. The ripest seedpods are located at the bottom of each seed stalk and should be hand-harvested as they dry. Progressive collection of the pods can be made over several weeks.

Drying the seeds:

Continue to dry the stalks away from direct sunlight.

Cleaning the seeds:

Many of the seedpods will shatter, while others will need to be broken by hand, or by

jogging in place or with the use of a thresher. Then you can winnow the seeds to remove all the debris.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for four-five years.

Remarks:

During the early spring of the second growing season, cabbages need to be cut a shallow "X" in the top of the head. This will allow the emerging seeds stalk to push up through the cabbage a bit more easily.

Carrot / Gajari

UMBELLIFERAE – *Daucus carota* var. *sativus*

Description:

Biennial
Reproduction by seeds
Cross-pollinated by insects
800 seeds/g
% germination?

Choose your plants:

Carrot is a biennial plant so the production of seeds will appear during the summer of the next year. As the vegetable is in the soil, dig down around each root to make sure that it is the right colour and right shape before letting the crop go to seed.

Saving the seeds:

Once the carrots umbels of the second season are ready, you can leave them to dry in the garden. The primary and secondary umbels give the best seeds.

Drying the seeds:

If the weather is wet, you can also cut the branches when fully mature and dry them indoors for two or three weeks additional.

Cleaning the seeds:

When the seeds heads are completely dry, rub them between your hands or over on appropriate screen mesh. Then use a smaller screen to remove the fine chaff. Be careful when you winnow the seeds because they are very light.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds can last up to three years.

Remarks:

Home-saved seeds of carrot have a beard on their seed coat, unlike commercial seeds which have been mechanically rubbed. This beard is reputed to enable carrot seeds to work their way into the ground.

Lettuce / Letis

ASTERACEAE – *Lactuca sativa*

Description:

Annual
Reproduction by seeds
1000 seeds/g
% germination?

Choose your plants:

To avoid crossing within lettuces, separate them by about ten feet or with a tall crop between them.

Saving the seeds:

A few outer leaves of each lettuce can be picked without affecting the quantity or quality of the seeds produced. Seeds ripen irregularly and are ready from twelve days after flowering. During this period, it is better to harvest the seeds daily by shaking the seeds heads into a paper bag.

Drying the seeds:

Then store the bag each night in a dry area. Another possibility is to cut the plant when

most of the seeds are ripe and to hang them upside down.

Cleaning the seeds:

When the lettuce seeds heads are totally dry, rub them persistently between the hands until the thousand of little capsules pop open. Put the raw mixture in a large bowl and shake. The lighter material will come to the top and be picked out with the fingers or blown with restraint. Achieve the cleaning with a small gauged mesh.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for up to five years.

Remarks:

Heading types may need help to produce seed. They may need to be lanced in a vertical cut to half way down, or the leaves peeled back or crunched off, to enable the stalk to emerge.

Radish / Kempu mulangiya

BRASSICACEAE – *Raphanus sativus*

Description:

Annual / Biennial
Reproduction by seeds
Cross-pollinated by insects
80-100 seeds/g
% germination?

Choose your plants:

Annual radishes (little round ones) produce seeds in one season while the biennial ones (black winter radishes) need two seasons. Leave more than one plant to go to seed. If you have one variety of radish still flowering when a second starts to flower, you can trim the flowers off the first variety and utilise them in salads.

Saving the seeds:

After flowering, the pods formed are green at first but turn tan as the seed mature and the plant begin to dry. The seeds stalks are harvested when the stalk and pods are dry.

Cleaning the seeds:

The pods will not shatter so they must be crushed gently with a large hammer or a wooden maul. Be careful not to split the seeds during the process. You can use a screen to remove the chaff and dust.

Drying the seeds:

Dry the seeds in a shady place for a further week or two.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds will last for four years.

Remarks:

Be careful with birds who love seeds of Brassicaceae family!

Rutabaga - Turnip / Tarnip

BRASSICACEAE – *Brassica napus / rapa*

Description:

Biennial
Reproduction by seeds
Cross-pollinated by insects
300 seeds/g
% germination?

most of the seedpods are dry but have not yet shattered.

Drying the seeds:

Continue to dry the seedpods away from direct sunlight or put the entire bunch upside down in a large paper bag and hang in a dry place for a couple of weeks.

Choose your plants:

Rutabaga and turnip are biennial: the root grows the first year and the flower stalk is produced in the second season. As they are easily cross-pollinated by insects, you must separate the varieties by one mile or cage them with daily alternation.

Saving the seeds:

When the pods start to form, pinch off the tips so that the lower pods will have larger and stronger seeds. Bird can be a problem at this stage! The seeds are mature when the pods turn yellowish-brown and the plant begins to dry. The best is to harvest regularly beginning with the pods lowest on the stalk. But you can also cut the entire stalk when

Cleaning the seeds:

Most of the seedpods will shatter but the remaining pods will need to be broken by hand, with a seed thresher, or by jogging in place on a bag. Other remaining debris can be removed by winnowing.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for five years.

Remarks:

To reduce the incidence of black rot diseases, the seeds can be hot water treated (25 min at 50°C) before to dry.

Aromatic Plants



Basil / Tulasi

LABIATEA – *Ocimum sp.*

Description:

Annual/Perennial
Reproduction by seeds / Vegetatively
Cross-pollinated by insects
600 seeds/g
% germination?

Choose your plants:

Basil is cross-pollinated by insects, so separate different varieties by at least 150 feet.

Saving the seeds:

The seeds mature from the bottom to the top of the flower. When the top seed capsules turn brown and brittle, you can cut the stalks or rub your hand up them.

Drying the seeds:

Dry on a sheet of paper or in a paper bag away from direct sun and in a well-ventilated area.

Cleaning the seeds:

Rub well when the seed capsules are crisp and dry, either in between the hands or on a small gauged wire mesh to dislodge the four seeds contained in each capsule. Place the mixture in a bowl and carefully whirl until the seeds gather at the bottom and the chaff on top. Pick out the bulky chaff with your fingers and gently blow over the rest.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds will last up to five years.

Remarks:

Basil can also be a perennial plant, so it can be propagated by cuttings. Just pop the bottom ends of the stalks in a glass of water until white roots appear and replant.

Coriander - Dill / Kothumbri - Sabbasige

UMBELLIFERAE – *Coriandrum sativum* / *Anethum graveolens* var. *esculentum*

Description:

Annual
Reproduction by seeds
Cross-pollinated by insects
Coriander: 90 seeds/g
Dill: 480-900 seeds/g
% germination?

Choose your plants:

If you have different sorts of coriander or dill, they will cross by insects. You can avoid it by planting the first variety early and sow the second variety when the first one is beginning to flower. Each coriander/dill plant produces several umbels that are usually allowed to dry in the garden.

Coriander:

As the coriander seeds do not all ripen at once and shatter from the heads very easily when mature, it is better to harvest them every day.

Dill:

When the seeds are light brown, cut the primary and secondary umbels with care and dry them on a canvas or paper, in the shade.

You will obtain the cleaned seeds with a little beating.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Coriander seeds remain viable for three years.

Remarks:

Flowers



Balsam

Description:

Choose your plants:

Saving the seeds:

Drying the seeds:

Cleaning the seeds:

Storing the seeds:

Remarks:

Butterfly pea

Description:



Choose your plants:

Saving the seeds:

Drying the seeds:

Cleaning the seeds:

Storing the seeds:

Remarks:

Cockscomb

Description:

Choose your plants:

Saving the seeds:

Drying the seeds:

Cleaning the seeds:

Storing the seeds:

Remarks:

Cosmos

Description:



Choose your plants:

Saving the seeds:

Drying the seeds:

Cleaning the seeds:

Storing the seeds:

Remarks:

Marigold

Description:

300 seeds/g



Saving the seeds:

The flowering period lasts a long time and there is constant production of the cylindrical dried seeds heads. They can be picked for

replanting immediately, or for storing away. Rub the seeds between the palms of the hands.

Drying the seeds:

Usually, no more drying is needed.

Cleaning the seeds:

You can winnow the seeds is necessary.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for two to four years.

% germination?

Remarks:

Periwinkle

Description:



Choose your plants:

Saving the seeds:

Drying the seeds:

Cleaning the seeds:

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for five years.

% germination?

Remarks:

Bulbs



Garlic / Javari

AMARYLLIDACEAE – *Allium sativum*

Description:

Annual
Vegetatively reproduced

Propagation:

When the whole plant turns brown, you can harvest the bulbs by pulling it out of the soil.

Drying the bulbs:

Garlic bulbs are usually dried for one week prior to storage, but never in direct sunlight.

Storing the bulbs:

After curing, garlic may be stored in paper bags or hung in braids or in bunches. Bulbs can be kept for six-eight months if stored in a dark and cold place.

Remarks:

After harvest, bulbs will enter a period of rest and then a dormancy period. Sprouting will occur when the temperature and humidity reach the proper range.

Onion / Eruli

AMARYLLIDACEAE – *Allium cepa*

Description:

Biennial
Reproduction by seeds
Cross-pollinated by insects
250 seeds/g
% germination?

Choose your plants:

Onion is a biennial crop and takes two full seasons to produce seeds. In the first year bulbs are formed and in the second year stalks develop and seeds are produced. The easiest way to save the seeds is to leave the bulbs to over-winter in the field. As onion is cross-pollinated, you should have only one variety in your garden flowering in the same time. Choose the healthiest plants and tag them when growing.

Saving the seeds:

Seeds are ripe when the stalk changes colour to brownish. The seeds become black and the capsules begin to open and drop seeds if shaken.

Drying the seeds:

Put the heads in a paper bag and hang in a dry shady place.

Cleaning the seeds:

When dry, shake and rub the bunch to obtain a mixture of seeds, capsule and stems. You can sieve and winnow the mix, or simply blow upon gently until only black seeds are left.

Storing the seeds:

Store in a dry and cool place in an airtight and dark container. Seeds remain viable for only one to two years.

Remarks:

Onions go to seed very rapidly, so a stake may be needed for the flowering stalk that can grow up to two meters tall.

Tubers



Arrowroot / ?

CANNACEAE – *Canna edulis*

Description:

Perennial
Vegetatively reproduced

Propagation:

The edible rhizomes are easy to divide. Take care to keep one eye on each new rhizome. Set them to heal for a few days in the shade, trim the leaves and replant. Fleshy stalks will

shoot from the eyes of the rhizome and tubers will also develop side shoots.

Remarks:

As it grows up to two meters tall, it can be used to protect other vegetables in the garden from the wind. If planted along a row of lemongrass, it makes the garden edge impenetrable to invasive grasses.

Elephant Foot Yam / Suvarnagadday

DIOSCERACEAE – *Amorphophallus peaniifolius*

Description:

Perennial
Vegetatively reproduced

Propagation:

The crop is planted at the beginning of the rainy season. Tubers are cut in parts, with at least one eye on each, and planted 3 x 3 feet

apart in a rich soil. The Elephant Foot Yam will mature in six-seven months, when the leaves turn yellow. Fully mature, graded and cured tubers will be stored and used later as new planting material. They should be kept in a well ventilated and cool area in a single layer.

Remarks:

Avoid storing the tubers in a heap.

Ginger / Shunti

ZINGIBERACEAE – *Zingiber officinale*

Description:

Perennial
Vegetatively reproduced

Propagation:

Cut the ginger rhizomes into their natural sections. Allow a few days for the cuts to heal and then plant them in rich soil five to ten centimetres deep, at the early wet season. Mulch the ginger beds with green leaves to enhance germination of seed rhizomes. The shoots will appear in a few weeks and then

will attain full weight. A green flower can emerge. Ginger harvest is about eight months after planting, when leaves turn yellow and start to dry. Dig out the rhizomes and separate them from dried leaves and roots. Select big and healthy rhizomes from disease-free plants to use as seed-rhizomes. They are stored in pits inside the shed to protect from sun and rain. Put them in layers along with well-dried sand or saw dust.

Remarks:

Inspect your stored rhizomes regularly to remove the eventual disease-affected ones.

Mango Ginger / Mavina Shunti

ZINGIBERACEAE – *Curcuma amada*

Description:

Perennial
Vegetatively reproduced

Propagation:

Choose the whole mother rhizome or parts of it of the size of a finger (15-20g). Always

select the healthiest and well-developed rhizomes for propagation. Plant them during the commencement of pre monsoon showers at a depth of 2-3 inches. Use green leaves to mulch the crop immediately after planting.

Remarks:

Mango Ginger looks like turmeric, but its crop duration is shorter with only six months.

Potato / Batatay

SOLANACEAE – *Solanum tuberosum*

Description:

Perennial
Vegetatively reproduced

Propagation:

When the tops die down, harvest and let the tubers dry in an airy place for a day taking care not to damage their fragile skin. Choose

only perfectly healthy, scab-free medium-sized tubers. Seed potatoes can be stored in dark, well-ventilated conditions for months.

Remarks:

Prior germination of seed potatoes, in the dark, helps to produce sturdy shoots. Expose trays of germinating potatoes to light for twenty four hours before planting.

Sweet Potato / Negila Genasu

CONVOLULACEAE – *Ipomea batatas*

Description:

Perennial
Vegetatively reproduced

Propagation:

Spontaneous mutations can appear after a lot of vegetative multiplications, so choose well the plants that you want to save for propagation. Plant your selected tubers into the soil. Six weeks later, you can pull off the slips that have grown about one foot tall. Then, transplant them by putting two thirds

of the slips into the soil. You can also simply cut a piece of a runner (about a foot in length) of a sweet potato plant. All the leaves should be removed except for the tiny leaves at the very tip. Then plant the cutting: only the leaves of the tip should stick out of the ground. The sweet potatoes are ready for harvest four to six months later.

Remarks:

Sweet potatoes can last six months and more if kept in woodash or sawdust, or wrapped in newspaper, but only if they are totally free of damage at harvest.

Taro / Kesu

ARACEAE – *Colocasia esculenta*

Description:

Perennial
Vegetatively reproduced

Propagation:

The top section, which is dark and has a fibrous skin, is chopped into pieces, left for a day or so to allow the surface to heal, and replanted in furrows six inches deep. A small green stem will appear about one week after

planting. Taro tubers are harvested about two hundred days later, when leaves start to die or turn yellow. They can be left in the ground or store after cleaning in a cool, dry place for months.

Remarks:

Taro leaves are also edible if boiled like spinach, but never strip the plant of all its leaves.

Giant Taro / Kesavu

ARACEAE – *Alocasia indica/macrorrhiza*

Description:

Perennial
Vegetatively reproduced

Propagation:

Remarks:

Turmeric / Arishna

ZINGIBERACEAE – *Curcuma longa*

Description:

Perennial
Vegetatively reproduced

Propagation:

The secondary lateral rhizomes, known as fingers on account of their shape, are used for propagating. They are planted about three inches deep. When the leaves turn yellow and start to dry out (about eight or ten months after planting), the turmeric rhizomes are ready to harvest. Dig up them and cut away

from the stems. Wash off and store in a cool, dark place up to six months.

Remarks:

Yam / ?

DIOSCERACEAE – *Dioscorea alata*

Description:

Perennial
Vegetatively reproduced

the beginning of the rainy season. At the harvest time, dig up the yams when the prolific tops die down, then store in a cool, dry place for up to twelve months.

Choose your plants:

Large sections of the yam are cut and left to heal before planting. Put them into the soil at

Remarks:

Typically, yams produce only one tuber per year, but it weights from five to ten kilograms.

Cuttings



Manioc / Maragenasu

EUPHORBIACEAE – *Manihot esculenta*

Description:

Perennial
Vegetatively reproduced

Propagation:

In good soils, manioc roots reach a size that is ready for harvest within a year. When the leaves die off in winter, prune back the mature branches and cut them into sticks that are about one foot long for replanting. These

can be kept in a shady spot for a few weeks before planting out. Bury about one third of each stock in the ground and it will send out new shots at each leaf node in spring.

Remarks:

Manioc is better grown in friable soils for ease of root harvest. Individual roots can be excavated without pulling out the whole plant, that is convenient because the roots must be consumed soon after detaching from the plant.

Mint / Pudina

LABIATAE – *Mentha species*

Description:

Perennial
Vegetatively reproduced

Propagation:

Mints are usually grown from cuttings, which is preferable to seed because crosses occur easily between different types.

Remarks:

Ideally, mints should be grown under a tap where they can get extra water.

New Zealand Spinach / ?

TETRAGONIACEAE – *Tetragonia tetragonioides*

Description:

Perennial
Vegetatively reproduced

Propagation:

Remarks:

With adequate compost and water, it develops three to four kilograms of leaves every ten square feet.

Water Spinach / ?

CONVOLULACEAE – *Ipomea aquatica*

Description:

Perennial
Vegetatively reproduced

Propagate water spinach by taking cuttings and standing them in water until they send out roots. Plant them out in rich mud preferably beside a body of water.

Propagation:

Water spinach thrives in swampy places where it sends out long runners like sweet potatoes.

Remarks:

Water spinach grows happily around the edges of a pond.

Annex: Hand pollination of Cucurbitaceae

The family of Cucurbitaceae is a large class which includes vegetables very common in India such as ash gourd, bottle gourd, bitter gourd, ridge gourd, sponge gourd, pumpkin and cucumber. This family has a particular characteristic: male and female occur on separate flowers on the same plant. With this arrangement, the pollination and production of fruits and seeds are only possible thanks to the bees. Indeed, the bees go from a flower to another one, covered by pollen and attracted by the nectar. But how to be sure that there is no cross-pollination by bees between the male flower of a big bottle gourd and the female flower of a small bottle gourd? The only way to ensure the purity of the seeds' varieties is to play the role of the bees: this is the hand-pollination.

Let's explain the method with the easiest vegetable: pumpkins.

1. The flowers open in the morning. So to avoid the pollination by bees, identify the previous evening the male and female flowers of pumpkin vines that are going to open the next morning. You can easily recognize them: they are slightly yellow and quite big. It is recommended to select 3 male flowers per female flower, and if possible from 3 different vines of the same variety.
2. Tie these flowers with a piece of twisted cotton yarn or with an old cotton cloth torn into strips. It should not be too loose or too tight, the aim is to maintain the flowers closed during the night but without cutting into the petals.
3. When the sun rises on the next morning, cut at the stem 3 of the male flowers selected and go close to the female flower. Remove the string from the male flowers and take off gently their petals.
4. Remove the twine of the female flowers without tearing the petals. Take the male flowers stalks and dust the pollen on the female part of the female flowers miming nature and action of bees. Be quick and careful because bees can fly around.
5. Once you finished depositing the pollen of the 3 male flowers for every female, tie immediately again the female flowers. You could need 2 pieces of twine to tie the petals back again.
6. Mark the coming fruit with a twine or a piece of cloth tying around the stem. Make sure that it is loose enough to accommodate the soon larger diameter of the stem. This mark allows you to recognize the fruits with pure seeds and the fruits for eating. You could need at least 2 fruits for seeds.

The method is almost the same for the others Cucurbitaceae, but some differences may occur:

- The bottle gourd flowers open in the evening and stay open during all the night. So to avoid the pollination by moths at night, the identification and tying of flowers has to be done in the morning. Also, the pollen is white and almost invisible so wash your hands carefully when you move to the next variety.
- As the flowers of ridge and sponge gourd are really smaller than pumpkin ones, it is hard to tie them with a string. The best option is to cover the flowers with paper bags and fold them close. The ridge gourd flowers open in the evening so identify and bag them before noon. You can do it in the evening for the sponge gourd flowers as they open in the morning.

- Cucumber and bitter gourd flowers are pretty small, the hand-pollination could be very difficult and the result hazardous. Choose the paper bag method with the first female flowers. If you can, prefer time or distance isolation for these vegetables.

Appendix

Common name	Scientific name	Kannada name	Page
Seeds Vegetables of the Malnad			
Amaranth	Green Amaranth	<i>Amaranthus viridis</i>	Bili Haruve
	Red Amaranth	<i>Amaranthus cruentus</i>	Kempu Haruve
	Bicolor Amaranth	<i>Amaranthus bicolor</i>	Bannada Haruve
	Rajgira Amaranth	<i>Amaranthus cruentus</i>	Rajgira Haruve
Bean	Bean	<i>Phaseolus vulgaris</i>	Avare
	30 Days Bean	<i>Phaseolus vulgaris</i>	Thingala Avare
	Angikase Bean	<i>Phaseolus vulgaris</i>	Angikase
	Hyacinth Bean	<i>Dolichos lablab</i>	Bhat Avare
	Lima Bean	<i>Phaseolus lunatus</i>	Kidney Avare
	Rajma Bean	<i>Phaseolus vulgaris</i>	
	Meter Bean	<i>Vigna unguiculata</i> Var. <i>Sesquipedalis</i>	Metre Avare
	Sword Bean	<i>Canavalia gladiata</i>	Kathi Avare
	Velvet Bean	<i>Mucuna pruriens</i>	Volver Avare
	Winged Bean	<i>Psophocarpus tetragonolobus</i>	Mathi Avare
Brinjal	Brinjal (Shrub)	<i>Solanum melangena</i>	Badane
	Brinjal White	<i>Solanum melangena</i>	
	Brinjal Cholu	<i>Solanum melangena</i>	Cholu Badane
	Brinjal Daas	<i>Solanum melangena</i>	Daas Badane
	Brinjal Hittalu	<i>Solanum melangena</i>	Hittalu Badane
	Brinjal Meter	<i>Solanum melangena</i>	Bonda Badane
	Brinjal Mulugai	<i>Solanum melangena</i>	Mulugai Badane
	Brinjal Mussuku	<i>Solanum melangena</i>	Mussuku Badane
	Brinjal Vadhiraaja Round	<i>Solanum melangena</i>	Vadhiraaja Gulla Badane
Chilli & Capsicum	Chilli (Shrub)	<i>Capsicum annuum</i>	Menasu
	Bugadi Chilli	<i>Capsicum annuum</i>	Bugadi Menasu
	Hittalu Chilli	<i>Capsicum annuum</i>	Hittalu Menasu
	Black Chilli	<i>Capsicum annuum</i>	Kari Menasu
	Kutumba Chilli	<i>Capsicum annuum</i>	Kutumba Menasu
	Majjige Chilli	<i>Capsicum annuum</i>	Majjige Menasu
	Needle Chilli	<i>Capsicum annuum</i>	Sooji Menasu
	Melmukhada Chilli	<i>Capsicum annuum</i>	Melmukhada Menasu
	Jasmine Chilli	<i>Capsicum annuum</i>	Mallige Menasu
	Capsicum	<i>Capsicum annuum</i>	Dollu Menasu
Cucumber	Cucumber Kadagolu	<i>Cucumis sativus</i>	Kadagolu Savate
	Cucumber Maggay	<i>Cucumis sativus</i>	Maggay
	Cucumber Spiny	<i>Cucumis sativus</i>	Mullu Savate
	Cucumber Yeray	<i>Cucumis sativus</i>	Yeray Savate
Gourd	Ash Gourd	<i>Benincasa hispida</i>	Boodhu Kumbala
	Bitter Gourd Green	<i>Momordica charantia</i>	Hasiru Hagala
	Bitter Gourd Wild		Mada Hagala
	Bitter Gourd Sparrow	<i>Momordica charantia</i>	Gubbi Hagala
	Bottle Gourd Big	<i>Lagenaria siceraria</i>	Udha Halkumbala
	Bottle Gourd Small	<i>Lagenaria siceraria</i>	Sanna Halkumbala

	Bottle Gourd		Tamboora	
	Tamboora	<i>Lagenaria siceraria</i>	Halkumbala	
	Ridge Gourd Big	<i>Luffa acutangula</i>	Udha Heere	
	Ridge Gourd Small	<i>Luffa acutangula</i>	Gidda Heere	
	Sponge Gourd	<i>Luffa cylindrica</i>	Bol/Thuppada Heere	
Lady's Finger	Lady's Finger (Shrub)	<i>Abelmoschus esculentus</i>	Bende	
	Lady's Finger Green	<i>Abelmoschus esculentus</i>	Bili Bende	
	Lady's Finger Red	<i>Abelmoschus esculentus</i>	Kempu Bende	
	Lady's Finger Sparrow	<i>Abelmoschus esculentus</i>	Gubbi Bende	
	Lady's Finger Sri Lanka	<i>Abelmoschus esculentus</i>	Sri Lanka Bende	
	Lady's Finger Yelu Yelay	<i>Abelmoschus esculentus</i>	Yelu Yelay Bende	
	Lady's Finger Oxhorn	<i>Abelmoschus esculentus</i>	Yethina Kodu Bende	
Maize	Maize	<i>Zea mays</i>	Musukina Jola	
Pumpkin	Pumpkin Long	<i>Cucurbita maxima</i>	Uddha Kumbala	
	Pumpkin Round	<i>Cucurbita maxima</i>	Urooota Kumbala	
	Pumpkin Summer	<i>Cucurbita maxima</i>	Nella Gove	
Purslane	Purslane	<i>Portulaca oleracea</i>	Goli Soppu	
Spinach	Spinach	<i>Spinacia oleracea</i>	Palaka	
	Spinach Malabar	<i>Basella alba</i>	Basalay Soppu	
	Spinach Wild	<i>Chenopodium album</i>	Kadu Basalay	
Tomato	Tomato (Shrub)	<i>Lycopersicon lycopersicum</i>	Tomato	
	Tomato Long	<i>Lycopersicon lycopersicum</i>		
	Tomato Round	<i>Lycopersicon lycopersicum</i>		
	Tomato Cherry	<i>Lycopersicon pimpinellifolium</i>		
Others Seeds Vegetables				
Beet Root	Beet Root	<i>Beta vulgaris</i>	Beet Root	
Broccoli / Cabbage / Cauliflower	Broccoli	<i>Brassica oleracea var. italica</i>	Kosugadde	
	Cabbage	<i>Brassica oleracea var. capitata</i>	Yelay Kose	
	Cauliflower	<i>Brassica oleracea var. botrytis</i>	Hoo Kose	
Carrot	Carrot	<i>Daucus carota</i>	Gajari	
Lettuce	Lettuce	<i>Lactuca sativa</i>	Letis	
Radish	Radish	<i>Raphanus sativus</i>	Kempu mulangiya	
Turnip / Rutabaga	Turnip	<i>Brassica campestris</i>	Tarnip	
	Rutabaga	<i>Brassica napus</i>		
Aromatic plants				
Basil	Basil	<i>Ocimum Basilicum</i>	Tulasi	
Coriander / Dill	Coriander	<i>Coriandrum sativum</i>	Kothrumbri	
	Dill	<i>Anethum graveolens var. esculentum</i>	Sabbasige	
Flowers				
Balsam	Balsam	<i>Impatiens Spp.</i>	Sonne	
Butterfly Pea	Butterfly Pea	<i>Clitoria terneata</i>	Shankapushpa	
Cockscomb		<i>Celosia cristata</i>		
Cosmos	Cosmos	<i>Cosmos Spp.</i>	Ketaki	
Marigold	Marigold	<i>Tagetes Spp.</i>	Gonde	
Periwinkle		<i>Vinca minor</i>		
Bulbs				
Garlic	Garlic	<i>Allium sativum</i>	Javari	
Onion	Onion	<i>Allium cepa</i>	Eruli	
Tubers				
Arrowroot	Arrowroot / Canna	<i>Canna edulis</i>		
Elephant	Elephant Foot Yam	<i>Amorphophallus</i>	Suvarnagadday	

Foot Yam		<i>campanalatus/peaniifolius</i>		
Ginger	Ginger	<i>Zingiber officinalis</i>	Shunti	
Mango ginger	Mango ginger	<i>Curcuma amada</i>	Mavina Shunti	
Potato	Potato	<i>Solanum tuberosum</i>	Batatay	
Sweet potato	Sweet potato	<i>Ipomea batatas</i>	Negila Genasu	
Taro	Taro	<i>Colocasia esculenta</i>	Kesu	
	Giant Taro	<i>Alocasia indica/macrorrhiza</i>	Kesavu	
Turmeric	Turmeric	<i>Curcuma longa</i>	Arishna	
Yam	Yam	<i>Dioscorea alata</i>		
Cuttings				
Basil	Basil	<i>Ocimum Basilicum</i>	Tuḷasi	
Ivy Gourd		<i>Coccinia grandis</i>		
Manioc	Manioc / Tapioca / Cassava	<i>Manihot esculenta</i>	Marageṇasu	
Mint	Mint	<i>Mentha species</i>	Pudīna	
New Zealand Spinach	New Zealand Spinach	<i>Tetragonia tetragonioides</i>		
Water Spinach	Water Spinach	<i>Ipomea aquatica</i>		

Bibliography

Ashworth Suzanne, *Seed to Seed, Seed Saving and Growing Techniques for Vegetables Gardeners* (Seed Saver Publications, Iowa, USA, 2002)

Fanton Michel and Jude, *The Seed Saver's Handbook* (The Seed Saver's Network, Australia, 2008)

Guillet Dominique, *Les Semences de Kokopelli, Manuel de production de semences dans le jardin familial, Répertoire de variétés de semences* (Association Kokopelli, Aubenas, France, 2001)

Kundaji Deepika, *Reviving Vegetable Diversity, A seed savers' guide* (Sahaja Samrudha, Bengaluru, India, 2015)

Rattan Lal Agrawal, *Seed Technology* (Oxford & IBH Publishing Company Pvt. Ltd., New Delhi, India, 2010)

The Seed Ambassadors Project, *A Guide to Seed Saving, Seed Stewardship & Seed Sovereignty* (The Seed Ambassadors Project, Oregon, USA, 2008)