A Garlic Primer

The genus *Allium* has long been banded back and forth between nomenclatural families. Although in “The Literature” it is more commonly found in the Amaryllidaceae family, Alliums have most recently been placed in the Liliaceae family. Wherever its nomenclatural hearth and home, there is no doubt that the genus *Allium* is horticulturally the family’s preeminent grouping.

There are approximately 400 species of wild onions and garlic found worldwide. The principal garden species are:

- *Allium cepa* – bulb onions
- *Allium cepa aggregatum* – shallots, multiplier onions, potato onions
- *Allium cepa proliferum* – topset onions, Egyptian onions, tree onions
- *Allium sativum* – softneck, artichoke garlic
- *Allium sativum ophioscorodon* – stiffneck, ophio, topsetting garlic
- *Allium ampleloprasum* – leeks, elephant garlic
- *Allium fistulosum* – bunching onions, scallions
- *Allium schoenoprasum* – chives
- *Allium tuberosum* – Chinese chives

*Allium sativum*, the modern garlic, is thought to have evolved from a wild species, *A. longicuspis*. It is native to south-central Asia in the steep ravines and mountains of the Tien Shan Plateau of northwestern China into southern Uzbekistan. But in fact, a broad area referred to as the “garlic crescent” runs from the Tien Shan Plateau across northern Afghanistan, Iran, the Southern Caucasus Mountains to the Turkish shores of the Black Sea, and is said to be the primary center of distribution for modern garlic. Garlic was spread across this region and beyond by both nomadic cultures and early trade routes in times before written history.

**THE MAJOR GARLIC TYPES**

Human distribution coupled with climatic effects fostered the evolution of two groups or subspecies of garlic:

- *Allium sativum ophioscorodon*—the stiffneck garlic of northern (harsh winters) continental Europe, and *Allium sativum sativum*—the softneck garlic of milder Mediterranean climates.

Within the *A. sativum sativum* group several distinctive garlics developed in the milder regions of China, Korea, and Japan. These are referred to as Turban and Asiatic types, and offer growers some of the earliest maturing of all garlics. They possess characteristics of both softneck and stiffneck and are highly recommended to kitchen gardeners and niche marketers alike (see varietal descriptions, pages 4–6).

**Allium sativum ophioscorodon – Stiffneck or Ophio Garlic**

This group or subspecies has a host of common names: stiffneck, topsetting, ophio, serpent, rocambole, etc. Stiffneck or ophio garlics are wilder than their softneck counterparts and are probably quite similar to any number of the 150 species of wild garlic. While there are records of this type of garlic being in cultivation for 3,000–6,000 years, there is very little evidence that it has ever produced viable flowers and seed.

Stiffneck garlics have a distinct set of characteristics that distinguish them from their more highly domesticated softneck relatives. Stiffnecks are aptly named in that they produce a solid, stiff, false flower stalk. The seed stalk coils in a circular fashion (see illustration) as it emerges and sometimes reaches a height of 3–4 feet. These stalks can be used as either fresh or dried flowers and often bring high prices in florist shops and direct-marketed bouquets. When the stalks are young they can be harvested, dried and included in stir fry dishes, adding a tangy zing.

If the flower stalks are left on the plant, they terminate in a capsule that contains up to 150 aerial bulbs (Bulbils) the size of a small popcorn kernel. These Bulbils can be nursified and grown for a year to produce a bulb with clove size that can be planted again and will produce a marketable size bulb the second year. Because most stiffnecks produce only 4–8 cloves per bulb, this method of propagation allows the home gardener to quickly increase the number of bulbs for planting. However, leaving the false seed stalk on the plant is done at the extreme expense to bulb size, and stiffnecks already are smaller bulb producers genetically.

Because of their stiff neck, ophio garlics generally are poor candidates for braiding. However, the necks can be soaked in water and bent or broken, dried, and then braided.

Stiffneck garlics naturally produce smaller bulbs than softnecks. While the bulbs are smaller, the clove size to bulb size ratio is greater. Sometimes stiffnecks produce cloves that are actually bigger than softnecks. They also feature more uniform clove size and a low number of cloves per bulb—commonly 6–10, but sometimes as low as 3–5 large cloves. Some varietal examples of low clove count: Georgian Fire, Georgian Crystal, Music, Korean Red, Brown Tempest and German Porcelain. See varieties section for more complete descriptions.

Stiffnecks are diverse in terms of shape size and bulb wrapper color. They feature a single circle or layer...
of large cloves arranged around the woody remnants of the stiffneck stem. Upon close examination, there is a separating skin that divides the layer in half. Stiffnecks often have a more elongated, tall symmetrical bulb shape with a delicate paper tail at the top of the clove. There are several distinctive sub groupings of stiffneck garlics based on the color, sheen, shape of bulbs and cloves. As a group, stiffneck garlics have a much shorter storage life than softnecks.

**Allium sativum sativum – Softneck Garlic**

*Sativum* means domesticated or cultivated in Latin. Thus, this subspecies of garlic commonly referred to as softneck or artichoke garlic is highly domesticated (*sativum sativum*). Indeed, softnecks are thought to have evolved under cultivation from their wilder progenitors, the ophio or stiffneck garlics. As such the softnecks are more responsive to inputs of water and nutrients, and yield both bigger bulbs and greater yields per area than stiffnecks.

Generally, softnecks have large leaves and produce an overall bigger plant that ophios. Softnecks do not send up a false seed stalk and thus shuttle more nutrients and energy into bulb size. They have large, heavy bulbs and a soft (braidable) neck. While the bulbs are big, they are lumpy and not as highly colored or attractive as stiffnecks.

Softnecks have a higher clove count per bulb, ranging from the high teens to forty. These cloves are arranged in 3–5 layers and have extreme variability in clove size. Particularly towards the center of the bulb, the cloves become small, rectangular and extremely difficult to use in the kitchen.

Additionally, softneck cloves are much more difficult to peel than stiffnecks. The joke regarding stiffnecks and peeling is that all you have to do is sneeze on them to get the skin to separate from the clove. Conversely, the peeling of softnecks usually involves the chipping of fingernails and sometimes the loss of skin from fingers and mumbled (or shouted) expletives.

Because of their response to cultivation, greater yields and longer storage life (6–10 months), softneck garlic is almost the only garlic used in commerce. With softnecks, more rather than less, one variety tastes about the same as another.

It is assumed that softnecks are for mild winter areas and stiffnecks for cold winter areas. But as a class softneck garlacies are better at adapting to cold weather than ophios at “crossing over” to mild winters. Softneck varieties, with their higher soluble solids content, are the garlics for roasting. When roasting garlic, remember that distinctive varietal taste characteristics tend to be obscured (see page 6 for details on roasting garlic).

**Allium ampeloprasum (formerly porrum) – Elephant Garlic**

Elephant garlic or great-headed garlic, as it was once called, is botanically a leek. Big is the operative word when referring to this plant: the plant itself is large, with a bulb exceeding 6 inches in diameter and weighing close to a pound each, containing 4–6 cloves which can reach 4” tall by 1” across.

While the plant’s characteristics are strong, the taste of elephant garlic is mild. It can be used in quick stir fry dishes, salad dressings (raw), and roasted whole. When roasted, it produces a large amount of a smooth-textured paste with very little garlic “zing.” Compared to the more robust *Allium sativum*, elephant garlic is a bit like the taste of light beer.

Elephant garlic was first introduced into commerce by Nichols Garden Nursery in Albany, Oregon, after purchasing stock from local Eastern European immigrant gardeners. Unlike stiffneck and softneck garlics, there is only one variety.

Elephant garlic should be spaced farther apart than true garlic, with 8”–10” between planted cloves to achieve optimal bulb size. It is much easier to grow than true garlic and is much more responsive to fertility inputs. Production of a seed stalk indicates that the plant received an adequate winter chill (<50ºF, >32ºF) for 6–8 weeks, and thus will produce a segmented bulb.

### CULTIVATION, HARVEST, AND STORAGE

**Garlic’s Growing Cycle**

In mild Mediterranean climates like that of Central California, garlic can be thought of as the “holiday plant.” You plant it just prior to Thanksgiving, top dress, foliar feed, or otherwise add supplemental nutrients on Valentine’s Day and St. Patrick’s Day, start to taper off watering on Memorial Day, and harvest around the Fourth of July.

This catchy way of looking at the garlic cycle is not literally true all around the U.S. Stiffnecks are planted a month earlier than softnecks, and in the north the goal is to establish root but not shoot growth before frost and snow, while fertilizing and harvest take place later in the cycle in areas with more severe winters. Still, the holiday reference can be a helpful guide in thinking about garlic’s needs and its long, slow growth pattern.

**Soil Preparation**

Like most *Allium* species, garlic has a fibrous but non-branching root system. It is both superficial (4”–8” deep by 4”–8” wide) and inefficient at marshalling water and nutrients from the soil. This inefficiency, combined with garlic’s extended growth cycle, means that growers must provide high fertility levels and supplemental feeding throughout all but the last part
of its growth period. Because garlic often grows in the wettest part of the year, good drainage is essential. A well-dressed raised bed with a shallow incorporation of nutrients is requisite for good results.

The garlic bulb is a modified leaf, thus it has a high nitrogen requirement. Phosphorus promotes early root development and helps establish the plant early in its growth cycle. Potassium is important for bulb development and food storage. A mixed compost made from horse manure with straw bedding (high potassium) and chicken manure (high nitrogen and phosphorous) is one fertility option. The goal is to establish a large plant prior to bulb initiation—the bigger the plant, the bigger the resultant bulb at harvest.

**Planting—September-November**

Bulb cracking and clove popping are laborious but important processes. Sizing and sorting in the post-harvest phase will expedite this stage. Gardeners often have three grades for sorting: the biggest bulbs for replant stock; the remainder of 1st grade and the next size down for sales; the smallest size for processing and generic kitchen use.

It is important not to pop garlic cloves from the bulb until just prior to planting (one week at the most). An increase in oxygen at the basal plate (where roots emerge) causes early root growth and can lead to rot if cloves are not in the ground. To the degree possible, the protective bulb and clove wrappers should be left intact. These wrappers have evolved to protect the cloves from the environment both in storage and in the ground. Any soft, injured, or diseased cloves should be discarded. The biggest bulbs (assuming good care) will result from planting the biggest-sized cloves from the biggest bulbs, and then big cloves from any size bulb. The purpose of the clove is to feed carbohydrates into the emerging shoot tip and root growth, getting the new plant off to a vigorous start irrespective of growing conditions.

Garlic cloves should be planted pointed tip up, basal plate down, with the top of the bulb 1”–2” below the soil level in mild climates and 2”–4” deep in cold weather areas. Garlic is a narrow-leaved monocot, and never really establishes enough leaf cover to protect the soil from the harsh influences of wind, rain, sun, freeze and thaw cycles.

A light leaf litter or straw mulch can remedy this situation. Using a partially aged mulch of straw bedding from horse stalls also has the benefit of serving as a manure tea as the rains wash nutrients into the root zone. Within rows, cloves can be spaced 4”–6” apart (stiffneck types), 6”–8” apart (softneck types), or 8”–10” apart (elephant garlic). Leave a minimum of 10”–12” between rows. In a 4’ wide x 50’ long raised bed, 5 rows x 6” will net 500 plants. Higher fertility levels allow for closer spacing without sacrificing bulb size at harvest.

**Irrigation**

After planting, soil moisture should be brought up to field capacity (a measure of how much water a soil can hold when saturated; field capacity occurs 2-3 days after a heavy rain or irrigation). Allow a good dry down to 50%–60% of field capacity before irrigating again. Prior to emergence, garlic cloves are prone to rot with overly wet soils. Once emergence has occurred (10 days–3 weeks in mild climates, 3–6 months in cold climates), soil moisture should be checked once or twice a week and plants should be watered when the soil is dry 4”–8” deep.

**Weeds**

You can have garlic or you can have weeds, but not both. As a narrow-leaved, inefficient, restricted-rooted plant, garlic is a poor competitor with aggressive, broad-leaved weeds. Weeding is most effective before the seedlings get established, both above and below ground. It is important to control weeds all the way through harvest.

**Bolting/Flowering**

Stiffneck garlics will send up a false flower stalk in late spring. This stalk should be cut just above the foliage. If left on the plant, it will significantly reduce bulb size at harvest (remember, stiffnecks already produce smaller bulbs than softnecks).

**Pre-Harvest Care**

Late fertilization of garlic is virtually useless and can lead to poor storage qualities, as high nitrogen and water content make bulbs prone to rot. During the last month of growth, the water needs of garlic decrease. It is important to have available moisture in the root zone, but care should be taken to avoid constant moisture near the bulb. The final irrigation is usually 2–3 weeks prior to harvest. In the latter stage of growth the plant will translocate nutrients from the foliage into the rapidly expanding bulb. As this starts to happen, the lower leaves will begin to yellow and eventually senesce. Bulbs should be approaching harvest size, with visible clove segmentation when approximately 25% of the foliage has senesced.

**Harvest and Curing**

Most softneck garlcs are harvested when 4–5 green leaves remain on the plant. Note that some early stiffneck types and the Asiatic and Turban type softnecks (described below) reach full bulb maturation even though all plant leaves are green or when one or two lower leaves start to brown. Stiffneck types are generally harvested when 5–6 green leaves remain (a mature plant will have 12–15 leaves). If left in the ground past this stage the bulb wrappers will decay, the bulbs will split open and be prone to rot in the ground or early in storage.

Each green leaf on the plant represents an intact bulb wrapper at harvest and in storage. Inevitably, two to three wrappers will be destroyed in the harvest or during postharvest handling. Garlic stores best with a minimum of two intact bulb wrappers; with fewer than two wrappers, cloves can split apart, turn green from sunburn, and suffer the effects of dehydration, or rot from too much moisture. Harvesting garlic at the slightly green or immature stage is safer than waiting until it’s overmature. Good drying and curing conditions can compensate for a slight degree of immaturity.

When ready for harvest, garlic bulbs should be pulled by hand or dug from the soil, depending on soil moisture and structure. In areas with little or no summer precipitation, garlic can be field cured. As the whole plants are pulled, they can be “shingled,” that is, 6–10 plants can be laid out, with the foliage of the next bunch covering the bulbs of preceding group. This technique protects the bulbs from sunburn. Garlic stores longer and better if cured or dried with the whole plant intact. In areas with summer precipitation, garlic is best cured in an unused greenhouse or well-ventilated shed on wire screens. In humid areas, forced air is a good aid to dry down. This curing process can
take as little as 5–10 days or as long as 3–4 weeks, depending on the matura-
tion of the plants/bulbs at harvest and subse-
tquent environmental conditions.

Cleaning and Storage

Once the garlic bulbs have cured and lost suf-
cient moisture, the tops can be clipped to 1/2”–1” It is critical to get
good dry down in the neck. Remember, the
purpose of a stem on any fruit or
vegetable is to act as a buffer between
the potential for rot from the environ-
ment and the items being stored. Note
that overly long stems of stiffneck garlic
cut at an angle can puncture surround-
ing bulbs in storage. Roots should be
trimmed to 1/4″–1/2”. Next, any soil
should be gently brushed from the
bulb wrapper and roots. Using either a
toothbrush or a small fingernail scrub
brush, exert a gentle but quick stroke
from top to bottom on the bulb. Try to
keep as many bulb wrappers in place
as possible, but peel off any that are
broken. The aim is minimal bulb wrapper
damage, while netting an undamaged,
vibrantly clean bulb with an unbroken
outer wrapper. This usually entails re-
moving no more than one or two wrapper
layers. Culling for damaged or mis-
shapen bulbs and size grading occurs at
this stage of post-harvest handling.

Fully cured, graded garlic can be
stored in burlap or synthetic net onion
bags. The synthetic material breathes
better and is less subject to harbor-
ing molds and fungi that can rot the
contents. Garlic should be stored at
low light levels, at temperatures above
freezing and below 40ºF or at 50º-60ºF
with a relative humidity of less than
75 percent. Good air circulation be-
tween bulbs adds to storage longevity.
Remember, 6 months is considered
long-term storage for stiffnecks, and 9-
10 months for softnecks, so eat and sell
your stiffnecks first.

Green Garlic
Green garlic is a marvelously broad
concept. Basically, it entails harvest-
ing, selling and best of all, consuming
whole immature garlic plants. The
plants can be planted at 2” spacing and
harvested at the bunching onion stage
all the way through mature (but still
green) plants with full-size, segmented
bulbs. The flavor is basically garlic (va-
rietal characteristics express themselves
during the curing stage), but because
of the high water content, it is suc-
culent and delicate—sweet and mild.
This concept affords growers cash flow
($4-$7 per pound) early in the season.
It is also appreciated in the kitchen by
cooks claming for garlic after the
winter stock has dwindled away or
gone soft.

GARLIC VARIETIES
Subgroups of Stiffneck Garlicks

There are several distinctive sub-
groupings of stiffneck garlicks based on
the color, sheen, and shape of bulbs and
cloves.

Rocamboles

Rocamboles perform best at latitudes
greater than 40 degrees North. In wet,
mild winters they often bulb poorly if
at all or fail to form cloves. These are
arguably the highest flavored of all
garlicks, peel most easily, and thus are
preferred by cooks in the know. The
plants are short and squat with broad,
spreading leaves. The flower stalks
make 1–3 tight coils (360 degrees) and
then resume their vertical growth.
Other varieties form coils that shoot off
at random angles. The bulb wrappers
are a light streaked purple. The cloves
are rounded and plump with high
soluble solids (dense) and number 6–11.
The clove color is usually brown, often
a rich mahogany with a purple splash.
Rocamboles mature midseason to
late and have the shortest storage life of
all stiffneck (2–4 months). Varieties of note –

Russian Red – large, thick, nearly round
bulbs with a copper hue and purple
blotches. 8-12 cloves per bulb. The
taste is fiery but quickly turns sweet
and buttery.

Spanish Roja – the standard when judg-
ing true garlic flavor. Cloves vary from
tea k to brown in color; bulb wrappers
are purple streaked. Rich, spicy fla-
vored bulbs mature in midseason and
store 4-6 months. May produce poorly
in mild wet winter areas.

German Red – produces large bulbs with
deep red color and 8-12 cloves. Fiery,
spicy rich garlic flavor. Does best in
cold winter climates. Matures mid
season.

Kilarney Red – high yields, late matur-
ation, one of the better Rocamboles for
mild, wet winter areas. Similar in ap-
ppearance to German Red and Spanish
Roja. Sustained heat, rich garlicky-but-
ter aftertaste.

Porcelain Group

This is an eye-catching group of
stiffnecks. Porcelains have almost pure
white bulb wrappers with a reflective
sheen and feature tall, symmetrical
bulbs with 5-8 cloves. The cloves are a
plump, crescent shape with an elon-
gated paper tail at the top. The clove
skins are usually light brown to pink
with some rose or red streaking. Clove
size sometimes rivals Elephant garlic.
The cloves are easily separated from
the bulb and peel with great facility. The
vigor ous plants can reach 4–5 feet in
height with the seed stalk extending up
another 2–3 feet. These are the long-
gest storing of all stiffneck types (5–8
months). Varieties of note –

Music – indeed it is music to the garlic
lover’s eyes and mouth. White skinned
with a touch of pink blush. 5-6 large
cloves per bulb. Highest yielding
variety with a long storage life (7-9
months). A medium heat index that
sticks around in the back of the mouth.

Georgian Crystal – native to the Republic
of Georgia. Large pure white, satin
bulb wrappers cover light brown,
red-streaked tail cloves that peel easily.
5-6 cloves per bulb. Mild, almost sweet
flavor, even raw.

Georgian Fire – very similar to Georgian
Crystal except it has a strong kick that
shows off well in salsa.

Purple Striped and Marbled Group

These two very similar groups of
stiffneck garlicks indeed have purple
stripes on the bulb wrappers and a
smooth satin sheen. The slender bulbs
are not as tall as Porcelain types and
contain 5–6 cloves with a distinctive pa-
per tail. The taste of the purple stripes
is moderately fiery initially but mel-
lows quickly. This group roasts well.
Varieties of note –

Chesnok – large bulbs, 6-10 easy-to-
peel cloves. One of the best roasting
and cooking garlicks as it holds its
shape and flavor. White bulb wrappers
with purple streaks. Stores 4-6 months.
Performs best in northern climates.

Red Rezan – bulb color is a glazed purple
with a hint of gold or copper and a
satiny finish. Moderate storage (4-5
months). High flavor but not over-
whelming.

Purple Glazer – similar to Red Rezan but
with fatter cloves. Originally from the
Republic of Georgia.

For the Gardener

Garlic Varieties

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ter aftertaste.
Brown Tempest – satiny bulb wrappers with faint, fine purple stripes. Light brown, rose-tinged cloves are short and plump. 6-9 cloves per bulb. 5-6 month storage. Fiery with a buttery aftertaste.

Siberian – perhaps the most outstanding of the purple stripe group. Large, white, purple-striped bulbs. 7-8 cloves are wrapped by light pink blush-red bulb wrappers.

Korean Red – extremely large, tall bulb with intense red to almost black-red coloring. 4-8 cloves. Longest storage of stiffnecks (up to 9 months). Hot, lingering taste.

Subgroups of Softneck Garlic

Artichoke Types
These have a lumpy, spreading bulb that vaguely resembles an artichoke flower. Varieties of note –

Inchellium Red – the best for roasting. 9-20 uniform cloves, bulbs often greater than 3” in diameter. High soluble solids give this variety a denser, heavier feel and more edible portion than other garlces. Stores 6-9 months. Mild but lingering buttery taste.

California Early and California Late – the garlic of Gilroy and the California garlic industry. Very large, vigorous, and productive. Lumpy off-white bulbs with pink-tinged cloves. Tight bulb wrappers beget long (7-10 month) storage. Mild flavored, slightly sweet, tame taste. Many small unusable cloves in center of bulb.

Machashi – good-sized flat, uniform bulbs. Cloves often occur in a single layer and are thus user friendly. Silky buttery aftertaste follows initial tongue-tingling fire.

Simonetti – a large, uniform bulb with a rosy patina on bulb wrappers, with pink cloves. Very productive, with a mellow taste.

Polish White or New York Polish – a monstrously big, uniform-shaped bulb; often the largest softneck type. Extremely cold hardy and does well in mild winter areas. Only 10-13 large cloves. Initially hot, but tones down quickly with a “sticks around” buttery sensation on the lips.

Creole Types
Genetically, these are softnecks that bolt early and appear stiffneck-like in their bulb and clove arrangement. They perform best in mild southern climates. Bulb wrappers are white, with distinctive red and purple clove skins. Harsh tasting when raw, these types are mild and sweet when cooked. Varieties of note–

Ajo Rojo – from Spain

Burgundy – deep, solid burgundy, with 8-12 uniform cloves per bulb

Creole Red – best tasting of its class

Spanish Morado – intense purple clove color

Silverskin Types
These softneck garlics are more demanding (à la stiffnecks) about climate conditions and soil fertility. Because of their silver-white exteriors, clean appearance and long, thin necks, they are excellent for braiding. Varieties of note–

Nichol’s Silverskin – the whitest of all silver skin types.

Silver White – highly productive in both coastal and hot interior climates, with a large bulb.

Nootka Rose – from the San Juan Islands off Washington State’s Olympic Peninsula; 5 clove layers with up to 35 cloves, streaked red. Large bulbs with strong flavor.

Asiatic Types
While genetically softnecks, these unique garlics combine large bulbs with the single layer clove arrangement, false flower stalk, purple or marbled color, and plump cloves of stiffnecks. They generally mature early (a month before all but the turban types, May 15 – June 1 in Central California). Asiatics need to be harvested as soon as any leaves show browning, or the bulbs will split apart. Varieties of note –

Asian Tempest – from South Korea. Large, finely striped with a purple blush. 5-7
For the Gardener

For the Gardener

Roasted garlic (be it stiffneck or softneck) is at its pinnacle from just after harvest to about the time it would normally be planted in the fall. At this time it starts to lose some of its sweetness and succulence and develop a green shoot in the center. While usable thereafter it doesn’t have its premier qualities as winter progresses.

To roast garlic: arrange upright in a ceramic pan with a lid (or use foil). Remove the outer bulb wrappers from the top portion of the bulb and cut off the tip of the bulb (1/4–1/2”). Pour 1/4” of soupstock or olive oil marinade into the bottom of the pan. Drizzle the bulbs with olive oil, salt, and herbs. Cover tightly and bake at 375˚ F for about 30–45 minutes (depending on size and type of garlic). The roasted puree can be squeezed out onto grilled bread or crackers. Or it can be added to soups, sauces, or vegetable purées.

How to Roast Garlic

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References


Garlic “Seed” Sources

Filaree Farm
182 Conconully Highway
Okanogan, WA 98840
(509) 422-6940
www.filareefarm.com
wide array of organic varieties, both softneck and stiffneck

Irish Eyes–Garden City Seeds
(509) 964-7000
www.gardencityseeds.net
good selection of softnecks, stiffnecks, and novelty alliums

Johnny’s Selected Seeds
955 Benton Ave.
Winslow, ME 04910
(877) 564-6697
www.johnnyseeds.com
German X-tra Hardy, NY (Polish) White

Nichols Garden Nursery
1190 Old Salem Rd. NE
Albany, OR 97321-4598
(800) 422-3985
www.nicholsgardennursery.com
high quality elephant garlic along with soft-neck and hardneck varieties

Peaceful Valley Farm Supply
PO Box 2209
Grass Valley, CA 95945
(530) 272-4769, (888) 784-1722
www.groworganic.com
10–15 varieties

Territorial Seed Company
PO Box 158
Cottage Grove, OR 97424
(800) 626-0866
www.territorial-seed.com
20+ varieties - Orin Martin
Manager, Alan Chadick Garden

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big cloves. Produces well in wet, mild areas as well as cold ones. Rich, long-lasting flavor. Moderate keeper (4-6 months).

Pyongyang – from North Korea. 6-8 cloves per bulb, with a rose-purple blush to the cloves, which have an elongated paper tail. Very early harvest, poor keeper (3-5 months).

Russian Red Streak – Big bulbs, firm and plump, with a very sharp initial taste and a heat that sticks around. Long storing (7 months).

Japanese – 5-7 large cloves, similar in size and shape to elephant garlic. Tan/yellow cloves.

Turban Types

Another cross-over type – technically a soft neck, but exhibiting stiffneck characteristics: poor storage (3–4 months), bolting flower stalk, high aromatic flavor, red and purple striping, and easy-to-peel cloves. As with the Asiaties, Turbans must be checked almost daily as they approach maturation and harvested at the first sign of any leaf senescence. These are the earliest-maturing of all garlics (May 1–15 in Central California). Varieties of note –

Chinese Purple – early maturation (June 1). 7-10 brownish cloves with a purple splash. Pure white bulb wrapper. Mid size, tight bulb, with a fiery hot taste. Stores well (7-9 months).


Tzan – from China’s Shandong Province. Often grown and marketed from Mexico as Mexican Red. Striped bulbs with purple blush. 8-10 cloves in a single layer, stiffneck style.

Xian – similar to Tzan but even earlier maturation.

- Orin Martin
Manager, Alan Chadick Garden

This material was written, produced, and distributed by staff of the Center for Agroecology and Sustainable Food Systems (CASFS) at the University of California, Santa Cruz.

The Center manages the Alan Chadwick Garden and the UCSC Farm on the UCSC campus – both sites are open to the public daily from 8 am to 6 pm. For more information on CASFS and its activities, call 831.459-3240, write to the University of California, CASFS, 1156 High St., Santa Cruz, CA 95064, or see our web site, casfs.ucsc.edu.