

A time for change: new world foods in old world menus

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According to horticulturists the success of new crops depends on several factors, some of these were as relevant in the 16th century as they are today [1]. These include:

- Do they grow in the new agro climate? I.e. crops requiring the same temperature, humidity and photo period will do better in the same areas (tropical plants do not grow in arctic climates). The higher the genetic diversity in the introduced plants the more likely a "fit" will be found.
- Easy adaptation to the cultural practices common in the main crops of the new region. It is easier to grow a plant if you can use the same system you are using currently.
- Prolonged production and supply periods - a crop that fruits or yields for an extended period of time will be preferred over one which has a short few weeks of production.
- Resistance to transport and handling, and extended post harvest life - can you get it to market in one piece
- Can it be sold through existing marketing channels
- Attractive to consumers, suitable taste for consumers - do they want it
- Easy to consume or prepare - can they cook it in familiar ways?

As we go through the list of "common" 16th century new world foods in the old world it will become obvious why some crops thrived and others struggled.

BEANS

The old vegetables - fava beans *Vinca faba*, chick peas *Cicer arietum*, Cow Pea *Vigna unguiculata* [2]. - Chick peas were known in antiquity, there is even evidence for domestication as early as the Bronze Age. The fava bean was widely cultivated and is still utilized widely today in Middle Eastern and some Mediterranean cuisines. The Cow pea was the vegetable to suffer most from the introduction of the new world bean, losing its common name in Spanish (frijol) and Italian (fagioli) to the upstart.

The new vegetable - Green beans, common bean, navy bean, string bean, wax bean *Phaseolus vulgaris* [2]. Beans were widely cultivated and domesticated among the natives of the new world, prior to Columbus even getting here. In fact the records of Columbus himself reported beans as being grown wherever agriculture was practiced. The beans spread rapidly first being used as ship stores for the return journey and later cultivated in Europe. They were widely described in herbals by the mid 1500s although the large number of cultivars and hence bean colors confused everyone. Phaseolus beans are pictured in Fuchs herbal from the early 16th century (<http://www.med.yale.edu/library/historical/fuchs/406-7.gif>) and also represented in the bronze portals, dated to 1595, of the cathedral of Pisa by the Flemish sculptor Giambologna [3].

Growth habit and culture method

If you have grown one bean you have grown them all. They can be split into two growth categories, bush types or vining types. Beans are planted in the spring and harvested either under-ripe (green) or allowed to dry in the pod and harvested as dry beans. Cross-pollination and careful breeding and selection has led to the production of hundreds of different cultivars and landraces some of which are specific to a single village [4].

Recipes from Scappi [5], Messisbugo [6] and Castelvetro [7]

This is where it gets tricky. How do you tell the difference between an old bean recipe and a new bean recipe when the same name is used for each? This is the one situation where the appellation "of India" or "of Turkey" was not added to the name of the plant to distinguish it from what came before the one exception to this is a description from Castelvetro [7]. Capatti & Montanari [8] indicate that both Scappi and Messisbugo have recipes for green beans, however this is the one occasion where no end note is given. Judging from the recipes themselves however, these are the ones calling for "fresh beans" which are replacing black eyed peas or cow peas as a fresh bean type vegetable.

Per far minestra di piselli, & fave fresche con brodo di carne Cap CLXXXVIII secondo libro, Scappi

Piglinosi li piselli freschi nella sua stacione, laqual comincia in Roma dal fin di Marzo, & dura per tutto Giugno, come sanno ancho le fave fresche, sgraninosi li detti piselli, & ponganosi in un vaso di terra, o di rame con brodo grasso, & gola di porco salata, tagliata in fette, et faccianosi bollire fin'a tanto che siano quasi cotti, & pongavisi una brancata d'aneci, & petrosemolo battuto, & facciano si finir di cuocere; et volendo fare piu spesso il brodo, pestisi un poco di essi piselli cotti, & passinosi per lo setaccio, & mescolinsi con li piselli intieri giungendovi pepe, & cannella, & servanosi con le tagliature della gola di porco. Si potrebbeno cuocere con li detti piselli teste de capretti pelate, & pollastrelli, piccioni, paparini, & anatine ripiene. Si può fare ancho in un'altro modo, cioè cotto che sarà il pisello con il brodo, si potrà maritare con uova, cascio, e spetierie. In tutti li sudetti modi si possono cuocere le fave fresche.

To make a dish of peas and fresh beans with meat broth, Chapter 188, 2nd book Scappi.

Take fresh peas in their season, which starts in Rome at the end of March and lasts through all of June, which is also that of fresh beans. Shell the said peas and put them into an earthenware pot or copper pot with fat broth and salted pork jowls cut into slices let them boil until they are almost cooked. Then add a handful of dill and parsley chopped and let it finish cooking. And if you want to make the broth more dense grind a few of the cooked peas, pass them through a strainer and mix them with the intact peas, adding pepper and cinnamon. Serve them with the cut pieces of pork jowl. One can also cook the said peas with skinned goat heads, and

pullets, pigeons, doves and ducks stuffed. One can also make it in another way, that is when the peas are cooked with the broth one can enrich it with eggs, cheese and spices. In all these described ways one can also cook fresh beans.

Per fare minestra di Piselli, & Fave fresche Cap CCXLIX, terzo libro, Scappi.

Pigliansi i piselli o baccelli, sgraninosi, & pongansi in un vaso con oglio d'olive, sale, & pepe, & faccianosi soffriggere pian piano, aggiungendovi tanta acqua tinta di zafferano, che stiano coperti di due dita, & come saranno poco men che cotti, pestisene una parte nel mortaro, e stemperisi con il medesimo brodo, & mettasi nel vaso con una branchata d'herbucce battute, e faccianosi levare il bollo, e servansi caldi. In questo medesimo modo si può accommodare il cece fresco, havendolo prima fatto perlessare, & fatto stare per un quarto d'ora nell'acqua fresca. In questo modo ancho si cuoce il fagiolo fresco.

To make a dish of peas and fresh beans, chapter 249, 3rd book, Scappi.

Take the peas or beans, pod them and put them in a pot with olive oil, salt and pepper, and let them fry very slowly. Then add enough water, which has been colored with saffron, that the beans are covered by two fingers. When they are a little bit less than fully cooked, grind a few and mix them with the same broth, and put them back into the pot with a handful of chopped herbs and bring back to the boil and serve hot. In this same way one can cook fresh chick peas, having first parboiled them and let them soak for a quarter of an hour in fresh water. In this same way one can also cook fresh beans.

A fare fasoletti freschi in tegola. Page 113 Messisbugo

Pigliarai le tegole de fasoletti quando sono tenerini, e taglierai il piccolo, poi le porrai a cuocere in'acqua bogliente, e subito si cuoceranno, & cotte che seranno le porrai a scolare col sale sopra, poi le frigerai in olio overo butiro, e frigendole nella patella, li porrai un poco di Aceto, e Pevere, e poi li imbandirai.

To cook fresh beans in the pod, page 113 Messisbugo

Take the pod of beans when they are tender, and cut them into little pieces, then put them to cook in boiling water, and they will be cooked almost immediately. And when they are cooked drain them and sprinkle them with salt, then fry them in olive oil or butter in a frying pan. Add a little bit of vinegar and pepper before serving them.

De' fagioli turcheschi, Castelvetro

Nella passata stagione ho a pieno ragionato della fava fresca e secca; or qui mi convien ragionare de' fagioli, frutto o legume molto simigliante a quelle di gusto; e di due spezie ne abbiám noi, né di niuna crudi mangiamo. L'una è de' men comuni e più grossi, li quali son tutti o bianchi over macchiati di rosso e di nero. L'altra spezie è de' più minuti e tutti bianchi con un occhio nero nel ventre. I primi si nominano turcheschi, li quali ascendono molto in alto; però chi non gli pianta vicino alle siepi conviene, volendone aver molto frutto, piantarvi a canto de' rami di fronde secchi, a' quali appiccandosi possano in alto montare; e perché portano una bella foglia verde, le donne in Italia e specialmente in Vinezia, ove son molto vaghe dell'ombra e della verdura e ancora per poter dalle finestre loro vagheggiare i viandanti senza da coloro esser esse vedute, usano di porre su le finestre delle camere loro alcune cassette di legno lunghe quanto è larga la finestra, né più larga d'una buona spanna e piene d'ottima terra; in quella piantano dieci o dodici di que' fagioli a luna crescente di febraio o di marzo o d'aprile, e poi con bastoncini bianchi vi formano una vaga grata alla quale essi s'attaccano, sì che d'una piacevole ombra tutta la finestra adombrano. Gli ortolani ancora ne' colti loro fanno siepi di canne o di bastoni bianchi della canape, a canto alle quali piantano quantità di simile legume, e così vengono alla vista a rendere i loro orti più vaghi e maggior coppia di fagioli raccolgono. I baccelli adunque di questo legume, mentre son verdi e teneri, né alla lor perfetta grandezza pervenuti, cocendoli tutti intieri e acconciandoli come de' lupuli ho mostrato, son molto buoni. Secchi poi se ne fanno buone minestre, cocendogli in ottimo brodo.

On turkish beans.

In the past season I have given full account of the fava been fresh or dried, now I shall give an account of the fagioli (bean) fruit or legume very similar to that tasted, and the two species we have no-one eats raw. The one is less common and is larger, it is all white or flecked with pink and red. The other species is much smaller and is all white with a black eye in the middle. The first we call Turkish, it grows very tall, so you should grow them against a trellis, or if you want a lot of fruit (a good crop) plant them against dried sticks or branches, the which fasten themselves tightly to it so they can raise themselves up. Because the they have beautiful green leaves, the women in Italy, especially in Venice, where there is much longing for shade and of greenery and also to be able to have the windows desireable to passers by without color being lost, They place around the windows of their rooms several wooden boxes, as long as the width of the window, if not larger by a good span, and full of good dirt. In this they plant tent or twelve of these beans in the new moon of February or March or April. Then with white sticks they make a rough trellis to which these attach themselves, and this creates a pleasant shade over all the windows so adorned. The market gardeners still collect canes from the hedgrows or white sticks from the hemp, against which they plant a number of these same beans. And thus they come to make the view of their garden more desirable and also collect more beans. The bean pod of this bean, when it is young and tender, is at it's most perfect point, cook them all intact and dress them as I have described for hop sprouts *, and they are very good. When they dry one can make good dishes (minestre), cooking them in the best broth.

* - ben bene sgocciolata in un piatto netto posta, con sale, con assai olio, con poco aceto, od in suo luogo succo di limone, e un poco di pepe franto e non polverizzato l'acconciamo - very well drained in a clean plate with salt, enough oil and a little vinegar, or in place of that lemon juice, and a little cracked but not powdered pepper we dress them.

SQUASH

The old vegetable - Gourd, Cocuzzi, *Lagenaria siceraria* [2], known from antiquity, archeological records place cultivation of bottle gourds as early as 3500 BC based on finds in Egyptian tombs. There is also good documentary (illuminated manuscript) evidence for culture within SCA period as well as numerous recipes calling for pumpkins, squash or gourds.

The new vegetable - pumpkin, gourd, squash, *Curcubita pepo* & *Curcubita moschata* [2]. Another crop which appeared to gain rapid acceptance in the new world. By as early as 1550 most herbals had descriptions of both summer squash (patty pan) and winter squash (pumpkins). Some excellent images of new world squash were captured in the frescos of the Villa Farnesina painted between 1515 and 1518. [9]

Growth habit and culture method

Both are large gourds which grow on long vining plants. I have grown both in my garden at home and been taken over by both of them. The vining old world gourds happily climb any structure or trellis, including 30 ft of adjacent fence line, the neighbors trees etc. The vines of the new world gourds generally require tying if you are going to persuade them to grow vertically rather than horizontally. Both plants need adequate watering and produce quite high crop yields.

Description from Mattoli [10] and Recipes from Scappi [5]



Zucce, pg 370 Mattoli

Ritrovàsene oltre a queste atempi nostri in Italia da serbare per il verno, varie di grandezza, di forma, & di colori. Questi di nuovo (secondo che dicono) ci sonostate portate dall'Indie: quantunque quelle, che chiamiamo marine, sieno più lungo tempo state in Italie. Tutte però hanno forma di melloni, ma alcune sono grandissime, alcune grandi, alcune picciole; & alcune mediocri, & alcune fatte a spicchi, come i melloni, & altre hanno le costole all'intorno dal fiore, al picciuolo, ben rilevate, ben distinte, & ben messe dalla natura, & alcune sono tonde, alcune piatta, & alcune tendono al lungo, di diversi colori, le quali veramenta sono hoggi assai più note a tutte che io non lo posso descrivere. Producono tutte queste spetie le foglie assai maggiori delle nostre, più grosse, & ruide alla mano, attaccate a grosso, & rigido picciuolo, & di forma simili alle foglie della viti. Hanno i sarmeti grossi, aspri, angolosi, & hirsuti, i quali se ne scorrono per terra assai lontano, & fagliano su per gli alberi per le siepi, & per le capane come le nostrane. I fior sono simili a i gigli, ma gialli, & molto maggiori.

Colgonsi l'autunno, & serbansi poi tutto il verno nelle cucine. Producono il seme grande come mandorle, piatto, & bianco, dove è dentro l'animella dolce et soave. Sono al gusto dolcigne, & non così insipide, ma sono però insauri se non s'acconciano con condimenti, & con spetie aromatiche.

Gourds

One can find other than these of ours (gourds) in Italy those that are served all the winter, of various sizes, shapes and colors. These new (as they are called) came from the Indians; some of these, called sea gourds, have been in Italy for longer. All of them, however have the shape of a melon, but some are very large, others large, others small, and others medium, some are segmented like melons, and others have ribs inside the floret, they are borne on stalks, well lifted and distinct, and a strong shoot, and several are round, others flat, others tending towards long, of various colors, the which of them there are truly so many of note today that I cannot possible describe them all. All these species produce leaves somewhat larger than ours, coarser, and ragged like a hand, attached by large and rigid stems, and of a similar form to living leaves. They have tendrils which are large, sharp, angled and hairy, which slide across the ground for a long way and vine (like beans) up into trees, hedges and trellises like ours. The flowers are similar to the lily, only yellow and much larger. One harvests them in the autumn and serves them then all the winter in food. They produce large seeds, like almonds, flat and white, and within is a meat which is sweet and gentle. They taste sweet and not bland like ours, but they are tasty without seasoning them with condiments and aromatic spices.

Per far diverse minestre di zucche Turchesche cap CCXX, Secondo libro, Scappi

Piglisi la zucca Turchesca nella sua stagione, la qual comincia dal mese di Ottobre & dura per tutto Aprile, & nette che sarà della scorza & degl'interiori taglisi in pezzi, & facciasi perlessare, & perlessata che sarà battasi con li coltelli, & facciasi cuocere in buon brodo di carne, & marinisi con cascio grattato, & uove sbattute, & si potrà ancho accomodare con le cipolle nel modo che si accomoda la nostrale sudetta. Avvertendo che se la zucca sarà soda, sarà molto migliore, & per conservarla ha da stare in loco asciutto, & arioso, & non ha da esser busciata in loco alcuno, percioche l'aria la sarebbe putrefare, in questo modo le si potrà fare scorze secche delle zucche Savonese dopò che saranno perlessate in acqua caldo & state in ammollo in acqua fredda.

To make various dishes with Turkish squash, Chapter 220, 2nd book, Scappi

Take the Turkish squash in its season, which begins in the month of October and lasts through all of April, and clean it of the skin and of the innards. Cut it into pieces and parboil it, when it is parboiled chop it with a knife and put it to cook in good meat broth, thicken and enrich it with grated cheese and beaten eggs. One can also prepare it with onions in the same way that one prepares our squash as described above. Be aware that if the squash is firm it will be much better, and to store them one should put them in a dry and airy place. And they (the squash) should not have any holes in them anywhere, because air will lead them to putrifaction. In this way one can make dried skin of Savonese squash, after they are parboiled in hot water and left to soak in cold water.

Per alessare & cuocere in forno le soprascritte zucche intiere piene di diverse compositioni, CCXXI, Secondo libro Scappi

Volendo alessare le sudette zucche, nettinosi con diligenza delle loro scorze, havendo avvertenza di non romperle, e facciavisi un buco tondo nella parte del fiore, o del pedone, & conservisi quel ruotoletto che si leva, & con ferri roncigliati che taglino cavinose destramente gl'interiori, & come sarà netta empiasi d'una compositione, fatta di carne magra di vitello o di porco battuta con altrettanto lardo & presciutto, & giungavisi cascio, rossi d'ouva, uva passa, spetierie comuni, & zaffarano, & habbinosi pollastrelli, o piccioni piccolini senza osso ripieni, & ponganosi nella zucca con essa compositione, & come sarà piena, truisi il buco, & ponganosi essa zucca in un vaso porportionato, di modo che non possa moversi, con tanto brodo, che stia piu di meza coperta con presciutto tagliato in fette, o ventresca di porco salata. Il che si fa accioche la zucca pigli il sapore, & non sia insipida, & con esso brodo pongasi pepe, cannella, & zafferano, & facciasi cuocere su le bragie, tenendo il vaso turato, che non posso fiatare, & quando haverà bollito per un pezzo, fin'a tanto che la compositione sia cotta, colisi il brodo con il proprio vaso, & facciasi andar con destrezza la zucca in un piatto grande, servendola cosi calda con il presciutto o ventresca intorno. Si potrebbe ancho empire la detta zucca con latte, uove battute, zuccaro, & presciutto vergelato taliato a dadi. Si potrebbe ancho fare in un'altro modo, cioè fatto che sarà il buco senza esser netta della scorza, cavinosisgli l'interiori, & con distrezza circondisi la zucca di dentro si nel fondo come nelle sponde con fette di presciutto vergellato, & habbinosi cervellate gialle crude tagliate, overo della compositione, et facciasi un suolo nel fondo, et habbianosi piccioni piccioli, pollastrelli, et quaglile, et altri ucelletti piccioli privi d'interiori, e con l'ossa ammaccati, e spolverizzati di pepe, cannella, garofani, et noci moscate, et ponganosi ad un per uno nella zucca, accomondandoli con la medesima compositione di cervellate, et nell'ultimo sopra li detti volatili mettasi una fetta di carne di vitella spolverizzata della sudetta spetieria, et essa fetta copra tutta la compositione, turisi poi il buco con qualla parte di cocuzza che si è cavata, et circondisi la zucca con fogli di carta, et lighisi la bocca con lo spago et ponasi in forno men caldo che se si volesse cuocere il pane, et mettasi in modo che possa havere lo caldo temperato per tutto, et siani sotto un suolo di rame o di terra senza sponda, il che si fa accioche quando sarà cotta, si posso cavare senza romper la zucca, et quando sarà stata in forno per due hore, et piu o meno secondo la grossezza, cavisi, e sciolgasi dalla carta, et turisi il buco, et pongasi sopra u'altro coperchio di scorze cruda laquale habbia attaccate alcune frondi et servasi calda. In essa zucca si puo fare una oglia potrida, havendo però cotti li ligumi come si dice dell'oglia potrida nel cap 152.

To boil and cook in the oven the above written squash, whole and filled with various stuffings, Chapter 221, 2nd book, Scappi.

If you want to boil the above said squash, peel them carefully from the skin, taking care not to break the flesh of it, and make a round hole where the flower was or the stem, and keep that round piece that one takes off, and with an iron spoon that cuts pull out very carefully the innards, and when it is cleaned fill it with a stuffing. Make it (the stuffing) with lean veal or pork chopped with additional lard and ham, and add cheese, egg yolks, currants, common spices and saffron. And if you have them pullets, or small pigeons without bones stuffed, and put them into the squash with this filling and when it is full, close the hole. Put the squash into a casserole that is proportionately sized, so that the squash cannot move itself, with plenty of broth, so that it is more than half covered with ham cut into slices or pieces of salted pork belly. This one does in order that the squash takes some flavor, and so that it is not insipid, and into this broth add pepper, cinnamon and saffron and let it cook on the coals, keeping the casserole sealed so that it (the flavor) does not escape, and when it has boiled for a time, until the filling is cooked, strain the broth into another casserole and take with extreme care the squash and put it on a large plate, serve it hot as it is with the ham or pork belly surrounding it. One can also fill the squash with milk, beaten eggs, sugar and fatty ham cut into chunks. One can also make it in another way, that is make the hole without peeling the rind, pull out the innards and with care cut around the inside of the flesh and in the bottom put a layer of fatty ham, and have ready raw yellow sausage cut, or the stuffing above, and make a layer in the bottom. Have ready small pigeons, pullets and quail and other small birds cleaned of the innards and with the bones broken, powdered with pepper, cinnamon, cloves and nutmeg and put them one on the other into the squash, layering/surrounding them with the same stuffing of yellow sausage, and after the last top bird put a slice of veal powdered with the said spices, and this slice (of veal) should cover all the stuffing. Close the hole then in that part of the squash where one emptied it and surround the squash with a sheet of paper, and tie the hole shut with string and put it into the oven. The oven should be a little less hot than if one was baking bread, and put it in the oven so that all the squash is heated evenly. And one should put it onto a sheet of copper or ceramic, this one does so that when it is cooked it is possible to take it out without breaking the squash. And when it has been in the oven for two hours, plus or minus, depending on the size of the squash, take it out and remove the paper. Take away the hole (covering) and put on top another cover made of raw peel to which one has attached

several fronds/leaves and serve hot. In this squash one can make an olio podrida, having first cooked the legumes like one says in the recipe for olio podrida in chapter 152.

MAIZE

The old vegetable - depends on where you were. For Italians it replaced millet *Pennisetum glaucum* and foxtail millet as a source of grain for the ubiquitous grain porridge in the diet. This led co-incidentally enough to outbreaks of pellagra amongst the peasant population in Italy at the turn of the 18th century. [8]

The new vegetable - maize, corn, Indian corn, *Zea mays*. Called numerous things in Italy, still today, which makes tracking it through the recipes and books of the time tedious. Formentone - coarse wheat, sorgo turco - Turkish sorghum, granturco - turkish grain, formenton ziallo - yellow wheat, biade and biava [11]. Acceptance of maize as a new crop was spotty. Some areas in the Veneto and Lombardy had accepted the new crop before 1600, whereas in Friuli maize really wasn't cultivated until the mid 17th century [12]

Growth habit and culture method

It is a grain and can be planted like other grains. However it is not harvested like other grains, such as wheat, oats, rye, etc. The whole stalk is not harvested and the grain thrashed from it on the floor of the thrashing shed. The one advantage it did have over existing grain crops, and the single most compelling reason it spread so quickly was the yield. Maize yielded more grain per acre than did other grain crops, however spread was taking well until the 18th century in places.

Description from Mattoli [10] and Recipes from Scappi [5]



Formento Indiano Mattoli

Puossi ragionevolmente consumerare fra le spetie del grano, quello che malamente chiamano alcuni formento turco, & dicono malamente, percioche si deve chiamare Indiano, & non turco, per essersi portato dalle Indie occidentali, & non d'Asia, nè di Turchia, come crede il Fuchsio. Di questo ne sono state portato a noi quattro sort differenti solamente nel colore delle granella. Imperoche di rosse porporeggianti, di nere, di gialle, & di bianchiacie ve ne sono. Fa questo grano il gambo come di canna, come anchora le foglie, grosso, tondo, alto, e nodoso come propriamente fanno le canne, ma però pieno di bianca midolla, come le canne di cui fa il zucchero, & quelle della saggina, che i Lombardi chiamano melega, nella cui sommità produce certe panicole, come pennacchi, ma però inutili, per non esservi dentro seme. Il frutto dove sono i grani, produce egli serrato in certe guaine cartilaginose, & bianhiccie, le quale escono da mezo del gambo dell'una delle bande, questo frutto è simile a quello del pezzo, dico cosi di grossezza, come di lunghezza, intorno al quale per tutto sono i grani calcati insieme nudi, lisci, tondi & grossi come piselli, & accomodativi dalla natura per diritte linee, le quali in ogni spica non sono manco di otto, o di dieci. Pende dalla parte di sopra della guaina una chioma, come di capelli del medesimo colore del frutto. Ha molte radici dure, & nervose, ma non però molto grosse. Seminano gli Indiani questo suo grano, il quale chiamano MAHIZ in questo modo. Vannosene nel campo alquanto insieme, & acconciarsi per dritta linea equalmente discosto l'un dall'altro, & dipoi con la mano destra fanno un pertugio in terra con un palo ben aguzzo, & con la sinistra vi mettono dentro quattro, overo cinque grani di seme, & con un piede ricuoprono il pertugio, accioche i pagagalli non mangiono il seme, & cosi con questo ordine facendo un passo indrieto seminano tutto il campo intero. Ma avanti che seminino, tengono in macera il seme due giorni, ne lo seminano, se prima la terra non è bagnato dalla pioggia. Nascè

fra poch giorni, & in quattro mesi si matura, & si miete. Euuene una spetie, che in due mesi si semina, & si raccoglie, & un'altra, che in quaranta giorni soli fa il medesimo, ma questo è per minuto, & manco buono, ne si semina, se non quando si seme di carestia. Credersi che il temperamento del formento d'India sia simile al nostro, è poco più caldo, il che ne dimostra la dolcezza del suo pane. Fa la farina bianca, della quale fanno il pane, la sustanza del quale è più grossa, & più viscosa del nostro. Et però si giudica che il suo nutrimento sia più grosso di quel del nostro, che però possa facilmente oppilare.

Indian wheat, Mattoli pg 307

It may be reasonably consumed, between the species of grain, that which is wrongly called by some Turkish wheat, I say wrongly, because one should call it Indian, and not Turkish, because it comes from the Western India, and not from Asia nor from Turkey as believes Fuchs. Of this there has been introduced to us four different types, based only on the color of the grain, that of purplish red, of black, of yellow and of white there are. This grain makes a stalk like a reed, like that which makes sugar, and that of millet, which the Lombardi call "melaga", at its head it makes certain hanging stuff like a plume of feathers, but it has no use because it does not have seeds within. The fruit, where the grains are, is produced enclosed in certain white paper like sheet, which grows half way down the stalk from one of the sides. This fruit is similar to that of the pitch pine, I say in terms of size and length, around which are all the seeds descending together, naked, smooth, round and large like peas, and they are arranged by nature in straight lines, which in each ear are at least eight or ten. Hanging from the part above the sheath is hair, like a hat and of the same color as the fruit. It has many hard roots, and rootlets, but not however very large. It is sown by the Indians, which is their grain and called by them Mahiz, in this way. They go into the fields many of them together, placing themselves in straight lines equally separated one from the other, and

then with the right hand make a hole in the earth with a sharpened stake and with the left they put into it four or five grains of seed, and with the foot cover over the hole, so that pigeons can not eat the seeds, and thus in this way they seed the whole field in a single pass. But first one seeds soak the seeds in water for two days before sewing them, if first the earth has not been bathed by rain. It sprouts within a few days and in four months it is mature and can be reaped. There is some species, which in two months from seeding one can harvest, and another that in only forty days one can do the same, but these are much smaller and are not good, some on sows if one is not short of seed. I believe that the temperament of the corn of India is similar to ours, or a little hotter, which is evidenced in the sweetness of its bread. It makes white flour, which can be used for bread, the body (texture) of which is coarser and clammy than ours. Perhaps one judges that the nutrition provided by it is coarser than that of ours and therefore perhaps easily causes blockages.

Per far minestra di formentone, & orzo mondo. Cap CLXXXV.

Il Formentone è un grano molto piu grosso di quello, del qual si fa il pane, & in Lombardia se ne trova in quantità, del qual si usa far torte, & fiadoni come si dice nel libro delle paste nelli suoi capitoli. Scelgasi dunque, & nettisi della polvere, & facciasi stare nell'acqua tepida per dieci hore mutando l'acqua alcune volte, & mettasi a cuocere con brodo grasso freddo di carne in un vaso di rame stagnato, o di terra, giunganovisi cervellate gialle, o salcizza, ovvero un pezzo di mendrolla di porco salata per dargli il sapore, & dappoi giungavisi cannella, & zafferano, & facciasi cuocere su le bragie lontano dalla fiamma col vaso turato, & non si faccia bollir men di due hore, & meza, & servasi con cascio, & cannella sopra. Tal minestra ha da esser sodetta. In questo medesimo modo si puo fare dell'orzo mondo, il qual vuol bollire molto piu del formentone, benche l'uno & l'altro voglia gran cocitura, & si potrebbero ambidue maritare con casscio, uova, pepe, cannella, & zafferano.

To make a thick soup of coarse wheat and peeled (scotch) barley. Cap 185, 2nd book, folio 70 Scappi.

The coarse wheat is a grain much larger than that which is used to make bread, and in Lombardy one finds it in quantity. Which is used for tarts and Fiadone (flat cakes) as is described in the book on pastries in their respective chapters. Select it therefore and wash the dust of it, and put it to soak in tepid water for ten hours, changing the water several times. Put it to cook with cold fat meat broth in a tin lined copper or ceramic vessel. Add yellow Milanese sausage, or sausage (salami) or a piece of salted pork mendrolla (? belly? hock?) to give it taste. Afterward add cinnamon and saffron and put it to cook on the pot stand a distance from the flame and cover (seal) the vessel. Don't let it cook for less than two and a half hours. Serve with cheese and cinnamon on top. This soup should be very thick. In the same way one can cook peeled (scotch) barley, the which should boil more than the coarse wheat because the one and the other need large (long) cooking, and one can enrich both with cheese, eggs, pepper, cinnamon and saffron.

Per fare pasticci di diversi grani à quattro cantoni, i quali dal vulgo sono chiamati Fiadoni. Cap XLVII

Facciasi cuocere il formento grosso con brodo grasso di carne, & cosi cotto che sarà, piglisi cascio Parmigiano, & cascio fresco, tanto de l'uno de l'altro, & per ogni libra di formento cotto, si adoperi una libra e mezza di cascio, & zafferano à bastanza, & quattro oncie d'uva passa, un'oncia di cannella, mezza oncia di pepe, tre oncie di pignoli ammogliati, & quando il grano sarà raffreddato, si mescoli ogni cosa insieme; poi habbiasi uno sfoglio di pasta, fatto di fiore di farina, & rossi d'ova, acqua rose, sale, & acqua tiepida impastata in modo che sia soda, come quella de pasticci grossi, & per ogni libra di pasta, piglisi otto oncie di butiro, & à poco à poco mettasi in la pasta, mescolando del continuo, fino à tanto che sia finito il butiro, & come essa pasta sarà venuta pastosa, & liscia, se ne farà un sfoglio tondo, di grossezza d'una costa di coltello, & esso sfoglio si faccia grande, & piccolo, secondo che si vorrà. Pongasi nel mezzo d'esso sfoglio la compositione, & si serri, & faccisi à quattro cantoni à foggia di lucerna, & diasegli il colore intorno, & sopra con ova sbattute & zafferano, et pongasi in forno alquanto caldetto di sopra, perche la pasta si venga piu presto a fermare, et facciasi cuocere, et non volendo che pigli troppo colore, gli si ponga sopra un sfoglio di carta straccia, et cotto che sara, servasi caldo, et si puo ancora servirlo freddo, et riscaldarlo in forno, o su la graticola, et volendo fare tal fiadone in giorno che non si magna carne, facciasi cuocere il formentone in latte di vacca, ò capra con butiro. In questo modo si potra fare fiadone d'orzo mondo, di riso, et farro, & ancora di miglio, et panico infranto, e si puo fare solo di cascio Parmigiano, cascio bazzotto grasso, zuccaro, et spetierie, et uva passa.

To make a pastry of various grains with four corners, which is commonly called Fiadoni (flat cake). Chap 47, folio 349, fifth book Scappi.

Put to cook the coarse wheat with fat meat broth, and when it is cooked take Parmigiana cheese and fresh (soft) cheese, enough saffron, four ounces of raisins, an ounce of cinnamon, half an ounce of pepper, three ounces of soaked pine nuts. When the grains are cooled one mixes everything together. Then take a sheet of pasta. Made of fine flour, egg yolks, rosewater, salt and tepid water mixed together so that it is firm like coarse pastry. For each pound of pastry take eight ounces of butter and little by little put it into the pastry, mixing continuously, until one has used all the butter. And once this pastry has become soft and smooth one makes of it a round sheet of the thickness of a knife blade. This sheet one can make large or small however one wants. Put in the middle of this sheet the stuffing and close it up and make four corners in the fashion of an oil lamp. Give it color all around and on top with beaten eggs and saffron. Put it into an oven with some heat above, because the pastry will become firm sooner. And put it to cook, and one doesn't want it to take too much color, one puts on top a sheet of cartridge paper. When it is cooked serve hot. One can also serve it cold and reheat it in the oven or on the grill. If you want to make Fiadone (flat cakes) in a day when one cannot eat meat, cook the coarse wheat in cows' milk or goats' milk with butter. In the same way one can make Fiadone (flat cakes) with peeled (scotch) barley, rice, spelt and also millet and fox-tail millet. One can make it with only Parmigiana, delicate fat cheese, sugar, spices and dried raisins.

Per fare torta di formentone grosso Cap LXXXVIII

Il formentone è un grano assai piu grande, & piu grosso del formento, & in Lombardia se n'usa assai in vivande, piglisi, & nettisi, & faccisi stare in mollo nell'acqua tiepida, per quattro hore, & lavasi a piu acque tiepide, & facciasi cuocere in buon brodo di carne che c'e fatto il riso, & il farro, & faccisiene torta con le medesime compositione, & ordine del capitolo sopradetto.

To make a tart of coarse wheat. Chap 88, folio 359, fifth book, Scappi.

The coarse wheat is a rather large grain, larger than wheat. In Lombardy they use it enough in dishes. Take it, clean it and put it to soak in tepid water for four hours and wash it in more tepid water. Put it to cook in good meat broth as one cooks both rice and spelt. And make the tart with the same ingredients and method as the chapter above.

Per fare torta di riso cotto in brodo di carne. Cap LXXXVII

Cuocasi una libra di riso bèn mondo in brodo di carne grasso, & cotto che sarà di modo che sia ben soso, cavisi, & si lasci scolare, & pestisi nel mortaro con libra una e mezza di provatura fresca, & una libra, & mezza di cacio Parmigiano buono, & mezza libra di cacio grasso, tre quarti di pepe, un'oncia di cannella, una libra e mezza di zuccaro, quattro oncie di butiro per conservarla morbida, sei ova fresche, & d'essa compositione faccinsene torta con un sfoglio sotto e sopra, & il tortiglione intorno; facciasi cuocere nel forno, o sotto il testo con la sua crostata sopra. In questo modo si puo fare del farro, & volendo bianc faccisi cuocere il riso nel latte di capra, & volendosi passare per la stamigna, sarà in arbitrio, in luogo della provatura pongasi ricotta, & in luogo della spetiereie, gengevero pisto, & chiare d'ova senza il rosso, con piu zuccaro, & un poco di cacio Parmigiano grattato.

To make a tart of rice cooked in meat broth Chap 87, folio 359, 5th book Scappi.

Cook a pound of well peeled rice in fat meat broth, and when it is cooked in the way that it is still firm empty it and let it drain. Grind it in the mortar with a pound and a half of fresh provatura (mozzarella) and a pound and a half of good Parmigiano cheese, and half a pound of fat cheese, three quarters of an ounce of pepper, an ounce of cinnamon, a pound and a half of sugar, four ounces of butter to keep it moist and six fresh eggs. With this stuffing make a tart with a sheet of pastry both underneath and on top with decorations all around. Put it to cook in the oven or underneath a "testo" with a crust (icing) above. In this way one can make it with spelt. If you want it to stay white cook the rice in goats milk and pass it through a fine strainer if you want. In place of provatura (mozzarella) add ricotta, in place of spices add ground ginger, egg whites without the yolk and more sugar and a little grated Parmigiano cheese.

TURKEY

The old bird - Peacock and peahen, large bird, some meat, perfect for making an entrance to a feast

The new bird - the turkey, at first called "hen of India - galla d'India" or "bustard of India - pollanche d'India" or even "peahen of India - pavoni d'India" The turkey first introduced into Europe was not the Bronze breasted bird we know today. It was the Mexican domesticated turkey, a smaller darker bird. What is odd is the incredibly rapid spread of the turkey throughout Europe, it has been estimated that the turkey spread at the rate of 40-50 km/yr this can be compared to the spread of chickens from the far east at 1.5-3 km/yr [13] The rapid spread was no doubt fueled by multiple importations of live turkeys, such as those ordered by the Bishop of Valencia in 1511. He ordered each ship from the Islands and Tierra Firme to bring back ten turkeys, five male and five female for breeding purposes. Turkeys were first recorded as arriving in Italy in 1520, so by Scappi's time they were hardly unusual.

Animal husbandry

I do not keep poultry; I have never kept poultry (disclaimer of ignorance). However, I sought the opinion of those that did, and as far as space/pen considerations and food considerations the two birds are virtually indistinguishable. Given the speed with which this animal spread it appears that the husbandry of it was not something odd and new.

Recipes from Scappi [5] and description from Romolo [14]

Per arrostitire il Gallo, & la Gallina d'India, liquali in alcuni lochi d'Italia di dimandano pavoni d'India. Cap CXLI, Secondo Libro, Scappi

Il gallo, & la gallina d'India son molto piu grossi di corpo che non è il pavone nostrale, et il gallo fa la ruota, anchor egli come il pavone nostrale, et ha le piume negre, et bianche, et il collo crespato di pelle, et in capo la testa un corno di carne, il qual quando il gallo si corrucchia, gonfia, et vien grosso in modo che gli cuopre tutto i mostaccio, et alcuni altri hanno il detto corno rosso mescolato di pavonazzo, è largo di petto, et nella punta d'esso petto ha una pannocchia di setole a modo di quelle del porco congiunte nelle piume, et ha la carne molto piu bianca, et piu molle del pavone nostrale, et si frolla piu presto che il cappone, et altri simili volatili. Volendolo arrostitire nello spedo, non si lasci riposare dopò la sua morte il Verno con li suoi interiori in corpo piu di quattro in si giorni, et l'Estade piu di due giorni; spiumisi asciutto o con acqua calda (come si ha da spiumare ancho la gallina) spiumato che sarà, et privo delli suoi interiori, accommadisigli il petto, percioche ha un osso nel petto assai piu alto che non hanno gli altri volatili, e taglisi la pelle da una banda appresso aldetto osso, e stacchisi con destrezza la carne dal detto osso, et taglisi la punta del detto ossso con un coltello che rada, e ricusciasi la pelle, e volendosi empire empiasi d'una delle compositioni dette nel cap 115, taglinosigli, & lascisigli la testa, & li piedi, & facciasi rifare nella acqua, & rifatto che sarà, lascisi rinfreddare, & impillottisi di lardo minuto, benche essendo grasso, & pieno non occorrerà impillottarlo di lardo, ma vi si haveranno da ponere alcuni chiodi di garoani; inspedisi, & facciasi cuocere adagio, tal volatile si cuoce molto piu presto che il pavone nostrale. Della polpo del petto si possono fare polpette, ballotte, e tutte quelle vivande che si fanno della carne magra della vitella mongana nel cap 43 & 47 cosi ancho di quella della gallina d'India, & del pavone nostrale, però subito che saranno morti, percioche essendo frolli non riescono cosi saporiti; Il detto gallo; e gallina hanno la medesima stagione che il pavone nostrale; è ben vero che in Roma si usano tutto l'anno, li suoi interiori si accommodano come quelli del pavone nostrale soprascritto.

To roast cock and hen of India, this is called in various places in Italy, Peahen of India. Chapter 141, 2nd book, Scappi

The cock and hen of India are much bigger in the body than our Peahens, and the cock makes the fanned display also like our peahen. It has black and white feathers, and wrinkled neck skin and at the top of the head a crown of flesh, the which when the cock

crows/displays enlarges and becomes large in the way that it covers all of its chin/face, and several others have the said red horn like the peacocks. It enlarges the breast and at the point of the breast has a set of bristles like those of the pig, conjoined of feathers, and it has much whiter and tenderer meat than the peahen. And it ages/tenderizes faster than the capon and similar birds. If you want to roast in on the spit, one should not leave it after killing in winter, with its innards intact, more than four to six days and in the summer more than two days. Pluck it dry or with hot water (as one plucks also the hen) and when it is plucked and cleaned of its innards prepare the breast. Because it has a bone in the breast sufficiently high that other birds do not. And cut the skin around the said bone and cut carefully the meat from this bone, and cut the point of the said bone with a knife that shaves, and close the skin. If you want to fill it use one of the stuffings listed in chapter 115. Cut and leave the head and the feet, and refresh the meat with water, and when it is firmed let it chill and bard it with small pieces of lard, even though it is fat enough. And if it is stuffed you do not need to lard, but put inside it several cloves, and let it cook slowly, this bird cooks much quicker than our peahen. Of the flesh of the breast one can make chunks and balls and all those dishes which one makes with the lean meat of milk fed veal in chapters 43 and 47, thus also those of the hen of India and our peahen, although as soon as they are dead they are tender but aren't as tasty. The said cock and hens have the same season as our peahens; however it is true that in Rome one uses them all year. Their innards one can prepare the same way as those of the peahen above written.

Per fare pasticcio di Pollancha d'India Cap XXXVII Quinto Libro, Scappi

Piglisi la pollancha giovane morta d'un giorno l'estate, & l'inverna de tre, perche tal volatice presto si frolla, & ha la carne assai piu Bianca, che non ha il pavone, spiumisi asciutta, & nettisi de suoi interiori. Taglisi il collo, & si empia di compositione di cervlate gialle con tarufoli, overo pedoni di carciofani perlessati tagliati minute, & finocchio dolce fresco, o secco sgranato chuidasi il buco, & faccisi rifare all'acqua, o alle bracie, & taglinisi l'ale, & i piedi, & pongasi in cassa, con fette di lardo sotto & sopra, spolverizzate della medesima spetieria, che s'adopera al pavone; cuoprasi il pasticcio, & si faccia cuocere al forno, & come è presso a cotto, volendosi servire caldo, pongasi dentro per il buco una salsa fatta d'aceto, zuccaro, vino bianco, canella, & garofali, overo altro sapore a beneplacito. In questo modo si puon acconciare i pavoni nostrali giovani.

To make a pastry of peahen of India (Turkey) chapter 37, 5th book, Scappi.

Take a young turkey, killed for a day in the summer, and in the winter for three, because this bird tenderizes quickly and has very white meat, unlike the peahen, pluck it dry and clean out the innards. Cut the neck and fill it with a stuffing of yellow sausage with truffles or artichoke hearts parboiled and chopped small, and fresh sweet fennel or dry fennel ground, close the hole and firm the meat with water or on the grill. Cut the head and the feet and put it in a case (pastry case) with slices of lard above and below, powder it with the same spices as one would use for the peahen, cover the pastry, and put it to cook in the oven. When it is nearly cooked, you want to serve it hot, put inside through a hole a sauce made of vinegar, sugar, white wine, cinnamon, cloves or another sauce of your choice. In this way one can also prepare young peacocks or peahens.

La stagione de i Pavoni, & delle Galline d'India Cap XXI, Secondo libro, Romolo

Quando il Pavone, & la Gallina d'India sono vecchie, sarà la carne loro buona nel maggior freddo dell'anno. Et i pollastri loro nascendo di Marzo saran buoni d'Agosto, & Settembre, & che vogliono esser di quattro mesi almeno, ma le femine, coìè pollanche vorranno haver dell'una, & dell'altra cinque ò sei mesi, & queste saranno eccellentissime.

The season of the Peahen and of the hen of India, chapter 21, second book, Romolo Domenico

When the pea cock and the hen of India are old they are at their best during the most cold portion of the year. And their male chicks born in March are good in august and September, and they should be at least four months old, but the female chicks that is "pollanche" should have between five and six months and then these are the most excellent.

Come si trincia un gallo d'India Cap XII Vincenzo Cervio [15] (an excerpt)

Il gallo d'India è uccello domestico, venuto pochi anni sono in Italia. Questo uccello è grande de ossi & di polpa, & ancora di bontà & pretio simile quasi al pavone, & per questo vanno ancora trinciati in un medesimo modo.

How one carves a turkey. Chapter 12

The turkey is a domestic bird, which has been in Italy for only a few years. This bird has large bones and flesh, full of goodness and purity somewhat like the peahen and for this it is carved in a similar way.

TOMATO

No discussion about new world foods in Italian cuisine would be complete without at least mentioning the tomato. However, despite the ubiquitous presence of the tomato in Italian cuisine today there is little or no evidence of its presence to any meaningful extent in the 16th century. In fact the spread in the use of tomatoes in various recipes and most particularly sauces appears to be strongly linked with the industrialization of food, particularly the production both of dried pasta and of canned and peeled tomatoes [8] the later most successfully by the Cirio corporation. So until the 18th century we have few, if any indications of widespread (or even spotty) use of the tomato in Italy.

The following three tomato references, from the 16th century, are taken from a previous set of translations (sources collected by THL Johnnae llyn Lewis and translated by me and Mistress Brighid ni Charain); available in the florilegium: www.florilegium.org/files/FOOD-VEGETABLES/16C-Tomato-art.html

Pietro Andrea Mattioli [10]

"Portansi ai tempi nostri d'un'altra spetie in Italia schiacciate come le mela rose e fatte a spicchi, di colore prima verde e come sono mature di color d'oro le quali pur si mangiano nel medesimo modo (delle melanzane)".

Translation: One can find in our time another species in Italy segmented like a rose hip and made in segments, first of color green and when it is mature of color gold the which one eats in the same way (as the eggplant).

Costanzo Felici

"Pomo d'oro, così detto volgarmente dal suo intenso colore, ovvero pomo del Perù, quale o è giallo intenso ovvero è rosso gagliardamente – e questo o è tondo egualmente ovvero è distinto in fette come il melone - ancora lui da ghiotti et avidi de cose nove è desiderato nel medesimo modo et ancora fritto nella padella como l'altro, accompagnato con succo de agresto, ma al mio gusto è più presto bello che buono".

Translation: Apple of gold, so called vulgarly because of its intense color, or apple of Peru, they are an intense yellow or a golden red – and this (fruit) is equal and round or distinct in slices (segments) like the melon –him that is greedy and eager for new things desires it in the same way and also fried in the pan like others, accompanied with vejuice, but to my taste it is more beautiful than good (tasty).

Source: "De l'insalata e piante che in qualunque modo vengono per cibo de l'homo" Manoscritti del 1569-1572 raccolti a cura di Guido Arbizzoni

Translation: Of the salads and plants in whatever way are used for food of man. Manuscripts of 1569 –1572 collected in the care of Guido Arbizzoni

Castor Durante

"I pomi d'oro mangiansi nel medesimo modo che le melanzane con pepe, sale e olio, ma danno poco e cattivo nutrimento"

Translation: The tomato one eats in the same way as the eggplant with pepper, salt and oil, but it gives little and evil nutrition.

Source: "Herbario nuovo", Roma, 1585, dall'introduzione di Piero Camporesi a "La scienza in cucina e l'arte del mangiare bene" di Pellegrino Artusi. (Translation: New herbal, Rome 1585, from the introduction of Piero Camporesi to "The science in cooking and the art of eating well" of Pellegrino Artusi)

The earliest recipes to include tomatoes can be found in Lo scalco alla moderna, by Antoinio Latini, published in 1692/94 (at that time part of the Spanish empire). The following originals and translations are taken directly from the paper by Rudolf Grewe [16].

Salsa di Pomodoro, alla Spagnuola (Latini, Lo scalco, vol 1, p 444)

Piglierai una mezza dozzena di Pomodoro, che sieno mature; le porrai sopra le brage, èbrustolare, e dopo che saranno abbruscate, gli leverai la scorza diligentemente, e le triterai minutamente con il Cotello, e v'aggiungerai cippola tritate minute, a discrezione, peparolo pure tritato minuto, serpollo o piperna in poca quantità, e mescolando ogni cosa insieme, l'accommoderai con un pò di sale, oglio, & aceto, che sarà una salsa molto gustosa, per bollito, o per altro.

Tomato sauce, Spanish style

Take half a dozen tomatoes that are ripe, and put them to roast in the embers, and when they are scorched, remove the skin diligently, and mince them finely with a knife. Add onions, minced finely, to discretion; hot chili peppers, also minced finely; and thyme in a small amount. After mixing everything together, adjust it with a little salt, oil and vinegar. It is a very tasty sauce, both for boiled dishes or anything else.

Altra minestra di Molignane (Latini, Lo scalco, vol 2, p 55)

Le taglierai in pezzetti, con cipolle tritate minute, e cocuzze fresche, pur tagliate minute, e pezzetti di Poma d'oro; farai soffrigere ogni cosa insieme, con le sue erbette odorifere, con vachi d'agresta al suo tempo, & con le solite spezierie, che riuscirà una minestra alla Sagnola assai buona.

Another minestra: of eggplants

Cut (the eggplants) in small pieces, with minced onions, fresh pumpkins cut small, and small pieces of tomatoes. Sauté everything together with fragrant herbs, with sour grapes if they are in season, and with the usual spices. You will produce a very good minestra Spanish style.

What is interesting about these two recipes is that while the first one most closely resembles a salsa and the use tomatoes were put in their country of origin the second recipe is almost identical to that most famous Mediterranean dish the ratatouille. Showing that tomatoes, an ingredient which was absent from cookbooks for so long was finally being accepted into the cuisine. But however they are being used at this point there is still no evidence that either of these two sauces was served on pasta as would be the case today.

So what hindered the spread of the tomato: let's look again at the requirements for spread:

- h. Do they grow in the new agro climate? - yes
- i. Easy adaptation to the cultural practices common in the main crops of the new region - no
- j. Prolonged production and supply periods - prior to canning no
- k. Resistance to transport and handling, and extended post harvest life - prior to canning and ethylene ripening no
- l. Can it be sold through existing marketing channels - uncertain
- m. Attractive to consumers, suitable taste for consumers - no, was considered by many to be poisonous.
- n. Easy to consume or prepare - can they cook it in familiar ways? - no, does not fit into existing culinary tradition.

Images of the various items in paintings of the period

Go to: <http://www.wga.hu> - the web gallery of art

Search for the following artists:

Archimboldo, Giuseppe, Italian painter b 1530 milano, d 1593 Milano. – spring, summer, autumn & Vertemnus, some definite images of maize and curcubits

Beuckelaer, Joachim, Flemish painter b 1530 Antwerp, d 1574 Antwerp – the vegetable seller series is noteworthy

Campi Vincenzo, Italian painter b1536 Cremona, d 1591 Cremona – chicken vendors has a nice picture of a turkey

Aertsen, Pieter, Flemish painter b1508 Amsterdam, d1575 Amsterdam – more vegetable stalls

Caravaggio, Italian painter b1571 Caravaggio d 1610 Porto Ercole – Still life with flowers and fruit - beans

Giovanni da Bologna b 1524 Douai, d 1608 Firenze - Turkey, Bronze 62 cm tall, Museo Nazionale del Bargello.

References

1. Prohens, J., A. Rodriguez-Burruezo, and F. Nuez, *New crops: an alternative for the development of horticulture*. Food, Agriculture & Environment, 2003. **1**(1): p. 75-79.
2. Sauer, J.D., *Historical geography of crop plants: a select roster*. 1993, New York: CRC Press.
3. Gepts, P., *A Comparison between Crop Domestication, Classical Plant Breeding, and Genetic Engineering*. Crop Sci, 2002. **42**(6): p. 1780-1790.
4. Zeven, A.C., *The introduction of the common bean (Phaseolus vulgaris L.) into Western Europe and the phenotypic variation of dry beans collected in The Netherlands in 1946.*, Euphytica, 1997. **94**(3): p. 319 - 328.
5. Scappi, B., *Opera : (dell' arte del cucinare)*. Reprint. First published: *Opera di M. Bartolomeo Scappi. Venice, 1570*. 1981, Bologna: Arnaldo Forni. [20], 436 leaves [ca. 888 p.], [28] p. of plates.
6. Messisbugo, C., *Libro Novo Nel Qual S'insegna a' far d'ogni Sorte de Vivanda*. 1557, Venetia.
7. Castelvetro, G., *Brieve racconto di tutte le radici, di tutte l'erbe e di tutti i frutti che crudi o cotti in Italia si mangiano*. 1614, In Londra, M.DC.XIV.
8. Capatti, A. and M. Montanari, *Italian cuisine : a cultural history*. Arts and traditions of the table. 2003, New York: Columbia University Press. xx, 348 p.
9. Janick, J. and H.S. Paris, *The curcubit images (1515-1518) of the Villa Farnesina, Rome*. Annals of Botany, 2006. **97**: p. 165-176.
10. Mattioli, P., *I discorsi di M. Pietro Andrea Matthioli, nei sei libri di Pedacio Dioscoride Anazarbeo della materia medicinale*. 1597: Felice Valgriso.
11. Gasparini, D., *Polenta e formenton: Il mais nelle campagne venete tra XVI e XX secolo*. 2002, Verona: Cierre edizioni.
12. Fornasin, A., *Diffusione del mais e alimentazione nelle campagne friulane del Seicento*, in *Vivere in Friuli. Saggi di demografia storica*, M. Breschi, Editor. 1999, Forum: Udine. p. 21-42.
13. Crawford, R.D., *Introduction to Europe and diffusion of domesticated turkeys from the Americas*. Arch. Zootec, 1992. **41**(extra): p. 307-314.
14. Romoli, D., *La Singolare dottrina di M. Domenico Romoli*. 1593, Venezia: Gio. Battista Bonfadino.
15. Cervio, V., *Il Trinciante*. 1593, Roma: Giulio Burchioni.
16. Grewe, R., *The arrival of the tomato in Spain and Italy: early recipes*. The Journal of Gastronomy, 1987. **3**(2): p. 67-82.

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