



(Photo: Royalty-free image of spices – some used, and some not, in this experiment.)

Flavoring of Mustard in Period

by
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PROJECT GOAL

The goal of this A&S project is to not only study the preparation of mustard during the Middle Ages/ Renaissance Europe — but the addition of commonly used spices and their alteration to the flavor of a singular mustard recipe. Having formerly presented an A&S project about the seed itself, in this project I wanted to further explore adding herbs and spices to a mustard recipe to learn how each of the additives would alter the flavor of the recipe.

MUSTARD AND MUSTARD SAUCES

Mustard and mustard sauces were very common in our period of study in the SCA (600-1600) as additions to most tables. Because of the abundance of the crop and the lack of refrigeration it's not a wonder that Medieval cooks developed sauces made of this common seed to use as a companion with salted or roasted meats and fish. Multiple period recipes mention the use of the seed and its use in the Middle Ages (*See appendix A*). Because it had been cultivated for thousands of years, mustard was one of the primary spices known to Europeans before the spice trade. Not only did it grow wild, but it was one of the first domesticated plants used both as feed for livestock and as a rotating crop to help aid in fertilizing the ground — making it much cheaper than other imported spices.¹

Straight mustard seed is known for its pungent, hot flavor which is an essential component to many dressing and sauce recipes during the Middle Ages. But unlike other spices, which are known for their heat, the flavor of mustard doesn't linger. It has a very sharp taste at first which rapidly disappears and leaves little to no after-taste on your palate. When the ground seed is moistened with water or vinegar the essential oils are released. These oils can inhibit the growth of yeast, mold, and bacteria, allowing mustard to function as a natural preservative.² This makes it no surprise that it was a common condiment in a Medieval kitchen. Redon, Sabban, and Serventi in their book *The Medieval Kitchen, Recipes from France and Italy* state that it "... was the most popular condiment in the Middle Ages, as well as the most ancient and widespread."³ The high acidity content of mustard also added to the flavor of meats, and was used to help aid in the digestion of foods high in fat content.⁴

(*More history and use of mustard - See Appendix B*)

MY EXPERIMENT

Mustards were flavored or spiced based on the popularity of taste. Various local and imported spices were added during the Middle Ages up to the addition of chillies during the Renaissance Time. Into the seventeenth century flavors such as vanilla and florals like orange-flower water or violet water were even added. The eighteenth century saw the additions of savory items such as anchovies, capers and Champagne.⁵

For my project, I have chosen a common recipe for mustard from *Le Managier de Paris*. This book was a cookbook of sorts for women who were trying to be "good wives" in managing their households and taking care of their husbands. The *Managier* teaches not only different items to cook — but the frugality of using and reusing items and ingredients within a kitchen in an effort to not be wasteful.⁶

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- 1 Weiss Adamson, Melitta. *Food in Medieval Times*. Westport, Connecticut, London: Greenwood Press, 2004. Pages 13-14.
 - 2 <http://www.greydragon.org/library/mustard.html>, Terafan Greydragon, "Medieval Mustard," Drachenwald University, November 13, AS XXXIV, (reviewed online April 2013).
 - 3 Redon, Odile; Sabban, FranCoise; Serventi, Silvano. Schneider, Edward, Translator. *The Medieval Kitchen: Recipes from France and Italy*. Chicago: University of Chicago Press, 1998.
 - 4 Toussaint-Samat, Maguelonne. *A History of Food*. Hoboken, NJ: Wiley-Blackwell; 2nd edition, 2008. Page 473.
 - 5 Toussaint-Samat, Maguelonne. *A History of Food*. Hoboken, NJ: Wiley-Blackwell; 2nd edition, 2008. Page 475.
 - 6 Hinson, Janet. *Le Menagier de Paris (The Goodman of Paris). A Treatise on Moral and Domestic Economy*, ca 1393. edited by Jérôme Pichon in 1846. Translation. Rochester, NY: Boydell Press, 1998.

The original recipe reads as such:

MUSTARD. If you wish to provide for keeping mustard a long time do it at wine-harvest in sweet must. And some say that the must should be boiled.

Item, if you want to make mustard hastily in a village, grind some mustard-seed in a mortar and soak in vinegar, and strain; and if you want to make it ready the sooner, put it in a pot in front of the fire.

Item, and if you wish to make it properly and at leisure, put the mustard-seed to soak overnight in good vinegar, then have it ground fine in a mill, and then little by little moisten it with vinegar: and if you have some spices left over from making jelly, broth, hypocras or sauces, they may be ground up with it, and then leave it until it is ready.

Source: Le Menagiér de Paris, J. Hinson (trans.)⁷

The 3rd entry referenced at “to make it properly and at leisure” was the avenue in which I started my mustard recipe for this experiment.

My translation of ingredients for this recipe:

- 2 cups good white mustard seed, whole
- 3 cups good white wine vinegar
- 5 TBSP honey



▲ My ingredients

Ingredients:

WHITE (commonly now known as “yellow”) MUSTARD SEED (*LATIN NAME: Sinapis alba*).– Purchased at Penzey’s spices. Penzey’s is a reputable modern spice supplier well-known for their good quality and wide variety of ingredients.

WHITE WINE VINEGAR – I chose an aged white wine vinegar called “Colavita”. This is a vinegar that was available at my specialty market made in traditional methods of aging in only wooden barrels and using 100% wine. It is a naturally aged vinegar made for its taste and aroma. This was chosen because, short of making my own vinegar, I felt it was as close to a Medieval wine vinegar as I could find.

TRADER JOE’S ORGANIC WILD COLLECTED RAW HONEY – You always know when you purchase something from Trader Joe’s you are getting pure ingredients! Again, chosen because short of collecting my own honey – this would be the closest I could get to quality period ingredients.

⁷ Hinson, Janet. *Le Menagier de Paris (The Goodman of Paris). A Treatise on Moral and Domestic Economy*, ca 1393. edited by Jérôme Pichon in 1846. Translation. Rochester, NY: Boydell Press, 1998.

MY PROCESS

- 1) According to the recipe, the “proper” way to make mustard is to soak the seed overnight. I used 2 cups of seed and 2 cups of white wine vinegar and let it sit, covered, for approximately 20 hours. I have not made mustard in this manner before – so I was certainly curious to try. Most of my formerly practiced recipes involved grinding, sifting, then adding the vinegar and letting it set for a time to age and mellow. The seed more than doubled in size (*See photos 1 and 2 at right!*)
- 2) I then ground the mustard in a food processor – my next *closest* thing to a mill. While I realize that a food processor is far from period – I did attempt to use a mortar and pestle to grind the seed first to compare. I have carpal tunnel syndrome, so hand-grinding even a sample is very difficult. After much frustration from both myself and my “assistant” (boyfriend with much stronger hands) neither of us were able to grind any of the seed in either of the bowls we own. The seed was very sticky and gummy and was just chased around and around. The “mill”, or the food processor, seemed to be the only way to get it into a paste-like consistency.
- 3) Unlike other versions of this recipe or others I’ve made – this recipe does not ask the seed to be sifted or strained. It was ground so fine that a paste-like consistency was developed (*See photo 3, right*). More vinegar was added at this time (1 cup in total) and incorporated into the grinding.
- 4) Translations of Medieval mustard recipes (*See appendix A*) frequently ask for the addition of sugar or honey to sweeten mustard. While it was not in the original recipe, I have added a slight amount to accommodate our “modern” taste-buds. I believe a modern palate would never choose to taste mustard without some slight sweetening since they’d be far too hot and bitter to our current tastes! There is also evidence of the addition of honey in several of my researched recipes (*See Appendix A*). I’ve added only 5 Tbsp. to this batch as not to take away from the flavor of the seed and to allow the other spices and herbs to show through.



▲ 1.) Mustard Seed – Dry



▲ 2.) Mustard Seed – soaked



▲ 3.) Seed finely ground with vinegar additions



▲ Ground smooth, sweetened, and ready to store!

This mustard was made approximately 12 days ago. It was left to rest in a covered container out of the sunlight. After four days, I added the spices in the next step. It was then stored in separate containers in the refrigerator for food safety reasons. The spices were not added at the same time as I made the mustard for two reasons: First, I wanted to allow the mustard to mellow as long as possible; and second, due to modern time constraints of free-time in the evenings!

ADDITIVES

My next step was to search for different spices that were used in period recipes. Medieval cooks considered anything that could add flavor to a recipe a spice. These include things that we still commonly associate as spices such as cinnamon, cloves, pepper, and nutmeg. They also used herbs like parsley, sage, mint, and thyme which could be grown in local gardens. Ingredients such as figs, dates, almonds and grape juice were even considered spices. Anything that could alter the flavor was used not only on meats – but in all dishes on the table.⁸ Many spices, however, were imported and were extremely expensive to the common man. Seasonings that were typically used for everyday were things that could be found locally — such as onions, garlic, pepper...and mustard. It wasn't until towards the end of the Middle Ages that more commonly imported spices were somewhat affordable to even those of middle income. Spices such as cinnamon, ginger, saffron, and cloves were more common at this time, but still used sparingly.⁹ Mustard recipes at this time included items that alternately flavor the mustard such as raisins, preserves, cloves, ginger and anise.¹⁰

Using The *Managiér* as my main source recipe, he suggests:

“...and if you have some spices left over from making jelly, broth, hypocras or sauces...”

Spices mixtures were fairly common in the Medieval kitchen. Translated recipes frequently call for “spices” or “spices used to make (item)” without generally giving detail to the exact spice. In reviewing jellies, these used “sweet spice mixtures” that were composed of ginger, cloves, and cinnamon.¹¹ Spices used for hypocras, a sweetened wine apéritif, were composed of ginger, cloves, nutmeg, grains of paradise, and cinnamon and when mixed with sugar is known as “powder douce” or “the dukes power”.¹² Variation in region, date, budget – and even chef – offer evidence of considerable difference in composition to any of these mixtures.¹³

Based on these discoveries, I have chosen the following spices for additives to my mustard:

- black pepper
- cinnamon
- ginger
- cloves
- nutmeg
- saffron
- dill
- dates

8 Johnston, Ruth A. *All Things Medieval: An Encyclopedia of the Medieval World, Volume 1*. Westport, Santa Barbara, California: Greenwood, ABC-Clio, 2011. p 671.

9 Johnston, Ruth A. *All Things Medieval: An Encyclopedia of the Medieval World, Volume 1*. Westport, Santa Barbara, California: Greenwood, ABC-Clio, 2011. p 255.

10 Redon, Odile; Sabban, FranCoise; Serventi, Silvano. Schneider, Edward, Translator. *The Medieval Kitchen: Recipes from France and Italy*. Chicago: University of Chicago Press, 1998. Pages 221-222.

11 Redon, Odile; Sabban, FranCoise; Serventi, Silvano. Schneider, Edward, Translator. *The Medieval Kitchen: Recipes from France and Italy*. Chicago: University of Chicago Press, 1998. Pages 221-222.

12 Hinson, Janet. *Le Menagier de Paris (The Goodman of Paris). A Treatise on Moral and Domestic Economy, ca 1393*. edited by Jérôme Pichon in 1846. Translation. Rochester, NY: Boydell Press, 1998.

13 <http://medievalcookery.com/recipes/douce.html>. “Powder Douce” (Reviewed April 2013).

Each of these items were added to the original mustard recipe on the fourth day and then stored in separate covered containers and refrigerated, as previously mentioned. I used 1/2 cup portions of the original recipe reserving one portion as a control without any additives.

Additive ingredients and methods:

INGREDIENT	LATIN NAME	AMOUNT	ACQUIRED FROM	PREPARED	IN PERIOD ¹⁴
whole long pepper, black	<i>Piper longum</i>	1/4 tsp.	Spicewells, a SCA spice merchant	ground at home just before use in spice grinder	This variety of black pepper has been seen in Greece and Roman dishes and was imported from India.
cinnamon	<i>Cinnamomum verum</i>	1/4 tsp.	Penzey's Spices	purchased ground	Imported from India (Ceylon)
fresh ginger root	<i>Zingiber officinale</i>	1/2 tsp.	local grocery store	ground fresh with hand grater	Imported in several forms, ground, preserved, dried from originally from India, and later the Middle East
whole cloves	<i>Syzygium aromaticum</i>	1/4 tsp.	Penzey's Spices	whole cloves ground in spice grinder	Imported from India, China, and Portugal
whole nutmeg	<i>Myristica fragrans</i>	1/4 tsp.	Penzey's Spices	whole seed ground with hand grater	Imported from India, China, and Portugal
saffron	<i>Crocus sativus</i>	1/8 tsp.	Purchased in Spain during travel	whole pieces ground in mortar and pestle	Originated in Crete, but in period was grown in England, Italy, and France
dill	<i>Anethum graveolens</i>	1/2 tsp.	Garden grown from friend, dried over last summer	whole pieces ground in mortar and pestle	Originally from Central Asia, naturalized after Roman Era in England and grown locally in gardens
dates	<i>Phoenix dactylifera</i>	5 whole	local grocery store	whole pieces chopped by hand with knife	Imported during the spice trades from the Middle East and N. Africa



◀ Saffron ground in my tiny mortal and pestle

14 Toussaint-Samat, Maguelonne. *A History of Food*. Hoboken, NJ: Wiley-Blackwell; 2nd edition, 2008.

DISCOVERIES

After each additive was incorporated, I tasted each batch to see if I could find variables in flavor, texture and so forth. The batches were also tasted on the tenth day for comparison...and now, we can taste them again!

DAY 4

INGREDIENT	HEAT	TEXTURE	COLOR	FLAVOR	AROMA
long pepper	medium	smooth	no difference	slightly floral	slightly floral
cinnamon	medium	smooth	no difference	slightly nutty	no difference
ginger	medium	smooth	no difference	slightly floral	slightly floral
cloves	medium	smooth	no difference	slightly nutty	slightly nutty
nutmeg	medium	smooth	no difference	slightly nutty	no difference
saffron	medium	smooth	more yellow	floral	floral
dill	medium	smooth	same color + some green herb	herby	herby
dates	medium	smooth with chunks	same color + brown of dates	sweeter	no difference

DAY 10

INGREDIENT	HEAT	TEXTURE	COLOR	FLAVOR	AROMA
long pepper	medium	smooth	slightly darker	floral and heat	slightly floral
cinnamon	mild	smooth	slightly more brown	clearly cinnamon taste	slightly nutty
ginger	medium	smooth	no difference	slightly floral and clearly ginger	floral and of ginger
cloves	medium	smooth	more brown	slightly nutty	nutty and of clove
nutmeg	mild	smooth	no difference	slightly nutty	slightly nutty
saffron	mild	smooth	becoming more orange	floral and clearly of the spice	floral and of saffron
dill	mild	smooth	green herb visible	herby and dill!	herby
dates	mild	smooth with chunks	slightly darker brown of dates	sweeter	no difference

YET MORE...DISCOVERIES!

The last time I entered A&S with mustard it was brought to my attention that I could save my Regional creations and retaste them again for Kingdom. I have brought along the Regional mustards which have now aged further. Below are my findings on the change in taste, flavor and so forth on the now aged mustards.

DAY 24

INGREDIENT	HEAT	TEXTURE	COLOR	FLAVOR	AROMA
long pepper	medium	smooth	more brown	floral and heat	slightly floral
cinnamon	mild	smooth	slightly more brown	cinnamony	slightly nutty
ginger	medium	smooth	starting to get darker	slightly floral and clearly ginger	floral and of ginger
cloves	medium	smooth	more brown	spicey clove	nutty and of clove
nutmeg	mild	smooth	starting to get darker	slightly nutty	slightly nutty
saffron	mild	smooth	more orange	floral and clearly of the spice	floral and of saffron
dill	mild	smooth	green herb visible	herby	herby
dates	mild	smooth with chunks	slightly darker brown of dates	slightly sweeter	no difference

DAY 45

INGREDIENT	HEAT	TEXTURE	COLOR	FLAVOR	AROMA
long pepper	mild	smooth	slightly darker	floral and heat	very floral
cinnamon	mild	smooth	even more brown	more nutty than strong cinn. taste	nutty
ginger	mild	smooth	even more brown	very ginger	floral and of ginger
cloves	mild	smooth	even more brown	slightly nutty	nutty and of clove
nutmeg	mild	smooth	even more brown	less nutmeg flavor but it's still there	slightly nutty
saffron	mild	smooth	even more brown	quite floral and clearly of the spice	very floral and of saffron
dill	mild	smooth	even more brown with herbs	herby	herby
dates	mild	smooth with chunks	more brown and chunks of dates	sweeter	no difference

SOURCES

www.greydragon.org/library/mustard.html, Terafan Greydragon, “Medieval Mustard,” Drachenwald University, November 13, AS XXXIV, (Reviewed April 2013).

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Appendix

APPENDIX A

England, late 15th c., MS Pepys 1047

To make sauce for A pyke

Take the refette (28.1) of the pyke and mynse hit small and put hit yn A dyshe and take a gode mese of musterd And put of the best and fattest of þe broth a.... (28.2) the saucer and shakyd and put hit in to the dyshe with the refete and put yn a litell vyneAger and a lytell vergys ther to And a grete quantite of Syamom & sugure and lityll gynger and as ye fele hit with your mowth ye may all way amend hit.

Modern Translation:

Take the edible viscera (28.1) of a pike and mince small; set aside. Combine mustard and broth thoroughly (28.2) and then mix with the viscera. Add a little vinegar & verjuice & season with cinnamon, sugar, and a little ginger. Taste for flavor and adjust as necessary.

Ruperto de Nola's Libro de Coch (translated by Brighid) Mostaza Francesa (French Mustard)

You must take a cantaro of the must of wine, either red or white, and grind a dishful of mustard that is select and very good; and after straining it through a sieve or a sifter, grind with it, if you wish: a little cinnamon, and cloves, and ginger, and cast it all, very well-mixed in the mortar, into the cantaro or jar of wine; and with a cane stir it around a long while, so that it mixes with the must; and each day you must stir it with the cane seven or eight times; and you will boil the wine with this mustard; and when the wine has finished boiling, you can eat this mustard. And when you want to take it out to cast it in the dish to eat, first stir it with the cane a little; and this is very good mustard and it will keep all year.

From an old Icelandic Medical Miscellany (supposed to be 15th century from a lost manuscript of the 13th century)

One shall take mustard (seed) and a third of honey and a tenth part of anise and two such of cinnamon. Grind this all with strong vinegar and put it in a cask. This is good for three months.

From the Dutch Eenen Nyeuwen Coock Boeck (1560), written by Gheeraert Vorselman and translated by Lord Floris van Montfort (G.A. van heusden) of the Shire of Polderslot.

Anderen mostaert opt Rooms,wit

Neemt mostaertsæt ende legget twee daghen in water te weycke, ende veranderet water dicwil, so sal hi te witter ende beter zijn ende stootten oft wrijften wel cleyne. Dan doeter toe amandelen cleynghestooten, ende wrijvet weder tesamen met witbroot dat geweyct is; dan doeget samen door met stercken azijn oft verjus. Wildien sterc hebben, doeter stercke specerie in, wildien soet hebben, doeter soet in.

(Translation)

Different mustard the Roman way, white.

Take mustard seed and lay it two days to soak in water, and change the water often, so it will be whiter and better and crush them small. Then add almonds crushed small and rub it together with whitebread that has soaked; then mix it with strong vinegar or verjuice. IF you want it strong, add strong spices, and if you want it sweet, add sweet.

Curye on Inglissh: English Culinary Manuscripts of the Fourteenth-Century (Including the Forme of Cury). Hieatt, Constance B. and Sharon Butler. New York: for The Early English Text Society by the Oxford University Press, 1985.

Lumbard Mustard:

Take mustard seed and waisshe it, & drye it in an ovne. Grynde it drye; sarse it thurgh a sarse. Clarifie hony with wyne & vyneger & stere it wel togedre and make it thikke ynowgh; & whan thou wilt spende therof make it thynne with wyne.

The 14th-c. Catalan "Llibre de Sent Sovi"

"to make mustard our way", with finely ground mustard seed, broth, and honey or sugar, pointing out that "the French style" is tempered with vinegar rather than broth.

APPENDIX B

Additional pre-period history of mustard:

Mustard is a cool weather crop that is known to grow wild in the Northern Hemisphere. Food historians can trace origins of the seeds to Stone Age settlements and grave sites.¹ Since the Egyptians enjoyed it mixed in food, it was discovered King Tut was buried with a large supply for the afterlife. There are multiple passages in the Bible where mustard seeds are mentioned generally focusing on the small or insignificant which in the future grows in strength and power.²

“It is like a mustard seed, which is the smallest of all seeds on earth.”

– *Mark 4:31, New International Version Bible, 2002*

“If you had faith even as small as a mustard seed, you could say to this mulberry tree, ‘May you be uprooted and thrown into the sea,’ and it would obey you!”

– *Luke 17:6, New Living Translation Bible, 2007*

Seeds were often used in medical compounds dating back to at least 400 B.C., in the West and were first mentioned in herbal medicine in China in A.D. 659. Originally the Ancient Greeks used them for medicinal purposes feeling that they aided in digestion, helped in healing cuts and war wounds, the reduction of phlegm, — and, even in love potions.³ The Greek physician Hippocrates (460–370 BC) developed this into a medical theory based around the temperaments of the body and later known as “the four humors theory”. He believed that specific human emotions and behaviors were caused by different bodily fluids (known as the humors: These were blood, yellow bile, black bile and phlegm). Like the Greeks before him, Hippocrates believed mustard should be used to “thin” down the moisture of the head, stomach and body reducing an individuals phlegm. These medical theories lasted for several hundred years making more of a case for the use of mustard through the Renaissance.⁴

They later discovered that they tasted good as well and added them both whole and ground in foods. It was also the Romans who discovered that mustard made a great condiment when ground and then mixed with wine at table side in particular with roasted fish.⁵ The Roman cookbook of Apicius, compiled in the late 4th or early 5th century AD, states that it is one of the most popular flavors (of the time) especially when mixed together with salt, vinegar and wine.⁶

Sources:

- 1 www.thenibble.com. “The History of Mustard from Prehistory to Modern Times,” reviewed Feb. 2012.
- 2 homecooking.about.com/mustardseedtype.htm, reviewed Feb. 2012.
- 3 www.thenibble.com. “The History of Mustard from Prehistory to Modern Times,” reviewed Feb. 2012.
- 4 Nasrallah, Nawal. *Annals of the Caliphs' Kitchens - Ibn Sayyar al-Warraq's Tenth-Century Baghdadai Cookbook*. Leiden, The Netherlands, Koninklijke Brill NV, 2007. p 140
- 5 homecooking.about.com/mustardseedtype.htm, reviewed Feb. 2012.
- 6 Weiss Adamson, Melitta. *Food in Medieval Times*. Westport, Connecticut, London: Greenwood Press, 2004. p 13-14.

Additional modern history of mustard:

Today, mustard seed is one of the most popular spices traded in the world. The areas that produce the greatest amount of mustard seeds including Hungary, Great Britain, India, Canada and the United States. Mustard is the second most-used spice in the United States exceeded only by the peppercorn.¹

Source:

- 1 homecooking.about.com/mustardseedtype.htm, reviewed Feb. 2012.