

Italy and the Potato: A History, 1550–2000

David Gentilcore

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Cover of Achille Mango's *La coltivazione delle patate*, 1931.

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This one's for Rita (as long as they're chips)

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Preface and Acknowledgements

As described in 1981 the mountain hamlet of Bertassi had 15 residents, average age 65, as well as nine cows and 34 houses still standing. There were some fields planted for hay, and some wheat; the impression was one of abandonment and decay, as nature slowly reclaimed what were once the terraced mountainsides.¹ Agriculture, in this part of the northern Apennines between Liguria and Emilia-Romagna, laborious and marginal at the best of times, no longer paid. Some signs of life were evident for a few weeks each summer, as former residents return for their holidays and as hikers pass through. Otherwise, the hamlet's main attraction seems to be its cemetery, which offers burial plots to *Bertassini* who now live elsewhere, mainly in Genoa, where spaces are hard to come by and cost an arm and a leg, as it were. Today the mountain hamlet has just six permanent residents.

Bertassi was not always more dead than alive. At its peak, in 1861, the hamlet counted 328 people, its population having doubled since the 1780s. Bertassi's economy was always a fragile one, based on cereals like barley, legumes and chestnut cultivation, for food and timber. Many inhabitants relied on seasonal migration to towns in the valley. What broke the stagnation in the early and mid-nineteenth century, and allowed the population to increase were the new uses for woodland. Instead of burning bits into charcoal, the woodland was cleared. The new land was turned into meadows for livestock or planted with maize and then potatoes. The result was an end to seasonal migration – people stayed put and the birth rate increased. Moreover, there was enough to eat: a local variety of potato, the 'Quarantina', saw to that.

Resources remained limited and the economy one of subsistence, however. Bertassi was not a part of the monetary economy. Paradoxically, as the population grew, and was able to feed itself, thanks to potatoes, it became poorer. The solution was a familiar one: people left. This was not the seasonal migration of earlier decades, but the emigration of whole families, to places like New York and Buenos Aires. In the last quarter of the nineteenth century Bertassi's population fell by half. Even the few better-off households were affected. Remittances from *Bertassini* in the Americas kept the hamlet alive, but by the 1920s increasing international restrictions on the movement of people meant that there were no more returnees. The hamlet seemed destined to disappear

slowly. During the 1930s Fascist government policy in support of mountain areas breathed new life into Bertassi. Proposals were made to introduce a new breed of cow that produced more milk, roads were built and new agricultural implements supplied. World War II undid all of that. The animals were requisitioned and there was a return to barter. Inhabitants were once again thankful for their potatoes (and their maize and meat), as hungry Italians waited out the War. Women were left to do most of the work – sowing, ploughing, scything and maintaining the mountain terraces.

After the War, through the 1950s and 1960s, new works were undertaken: running water and a new electrical supply. Pastures were expanded and intensive livestock rearing was undertaken, resulting in higher milk production, but at the expense of other forms of agriculture. Better roads were built. But the roads only made it easier for people to leave, mostly for Genoa. Only the elderly remained, thankful for their newly introduced government pensions. The *Genovesi*, as these ex-residents are called, and now their children, return for their holidays – and as corpses. A few of the larger towns in the area have been able to reinvent themselves as tourist destinations. Rovegno has its *sagra* (potato festival), in honour of the recently revived ‘Quarantina’ potato, held each year on the first Sunday in October. But not Bertassi.

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Why devote several pages to a sleepy, moribund hamlet like Bertassi, high in the Apennines? First of all, because its historical ups and downs are typical of uplands throughout Italy. And second, to demonstrate how the population and the potato are intimately linked. For this is both a social and cultural history of the potato in Italy and a history of agriculture in marginal areas.

Italy, like the rest of Europe, owes a lot to what has been called the ‘Columbian exchange’. As a result of this process, in addition to potatoes, Europe acquired maize, tomatoes and most types of beans. All are basic elements of European diet and cookery today: try thinking of Italian food without the tomato and you can appreciate the importance of the exchange. For their part, the Americas acquired wheat, rice, bananas, citrus fruits, coffee and cane sugar. Asia got bananas, papayas and potatoes; while Africa acquired maize, manioc and potatoes. The international importance of the potato today as the world’s most cultivated vegetable, and the fourth most important crop (after maize, rice and wheat), highlights its place in the Columbian exchange.

Italian potato consumption today is around 38 kg per capita. This is well behind the consumption of the potato-loving countries of eastern Europe, such as Belarus (180 kg per capita) and Ukraine (136 kg per capita), or even more historical consumers like Ireland (120 kg per capita) and Britain (102 kg

per capita). Peruvians, who gave potatoes to the world, not surprisingly, also eat more (80 kg per capita). Italians eat fewer potatoes per head than North Americans (Canada 65 kg per capita; United States 54 kg per capita). Italy's potato production of almost two million tonnes a year (1,837,844 tonnes) is dwarfed by the production of countries like the relative newcomer, China (72 million tonnes) and Russia (37 million tonnes); Italy still has to import over one million tonnes of raw and processed potatoes to meet internal demand.² Indeed it is often cheaper to import potatoes from other EU countries, like Poland (production 12 million tonnes), at one-fifth the cost of Italian ones.³

What is surprising is that a Mediterranean country like Italy should be consuming (and producing) potatoes at all. This is, after all, the country of pasta, polenta, legumes and so on. Indeed the Italian region which produces the most potatoes, Campania, is located in southern Italy, whose capital city, Naples, gave us pizza and pasta *al pomodoro*. And other southern regions like Sicily, Calabria, Abruzzo and Puglia are not far behind. High, too, in production terms, is Emilia-Romagna, more famous for its Parma ham (prosciutto) and Parmigiano cheese.⁴ In fact, when it comes to vegetable cultivation in Italy, potatoes are second only to tomatoes.

Why Italians adopted the potato, and why some areas of the country more than others, are two of the central questions of this book. The third question, related to the first two, is why it took them so long to do so. The potato was known to Europeans from the 1550s, and eventually became important in areas of Northern Europe; it took some three hundred years before it entered the Italian diet. Then, for hundred years or so it remained a staple, eaten at all levels of society, in town and country alike, and giving rise to an immense variety of local dishes – before it experienced a decline in consumption and production levels in more recent decades. Finally, this is also a history of Italy's mountains. While potatoes flourished in lowland areas as early crops, often grown for export, it was in the uplands that they became most closely linked with local culture. They found an important place in mountain ecosystems. Rather than focus exclusively on the regional perspective standard in studies of Italy (of north, centre, south), this book stresses the importance of altitude as a factor in the country's agricultural, environmental and dietary history.

In a 1991 article, the Italian social historian Maria Antonietta Visceglia referred to the potato's Italian history as 'obscure'; despite some important local studies since then, which will be discussed in due course, this is still largely the case.⁵ More recently, the anthropologist Alessandra Guigoni, in the context of her own work on Sardinia, remarked that the social history of the potato in Italy was still in search of its author.⁶ While the history of the potato in England, Ireland and other parts of Northern Europe is quite well known,

relatively little is known about the slow rise of the potato to the status of staple in Italy. *Italy and the Potato* attempts to fill this gap.

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Two final words regarding the sources. All translations are my own, unless indicated otherwise. And all references to websites were accurate at the time of writing.

The 'Perverse Strangeness of the Seasons': 1816–17

The crisis of 1816–17 is sometimes given as the time when Italians began to eat (and grow) the potato.¹ If that is the case, then potato-eating (and growing) in Italy is in large part due to a volcano. Let us take a closer look.

A series of eruptions during the years 1811–18, culminating in the explosion of the Tambora volcano in 1815, on the island of Sumbawa (Indonesia), sent up enough dust into the atmosphere to alter the climate around the world. In Europe, contemporaries noticed a 'smoking vapour' in the air and the weakness of the sun. They recorded strange phenomena like a reddish sun and moon and richly coloured twilights. In May of 1816 a red and yellow snowfall terrorized the inhabitants of Taranto (Puglia), where snow was itself a freak occurrence.² The spring and summer of that year were amongst the coldest in the meteorological history of the Western world, accompanied by excessive precipitation. Indeed most of the decade had been characterized by cold, wet summers. Crop failures occurred repeatedly. With words that have a strange ring of familiarity to us today, a contemporary wrote of 'the calamities to which the perverse strangeness of the seasons has condemned us for some time now'.³ Suffering reached a peak in 1816–17, the West's 'last great subsistence crisis', in the words of John Post.⁴

ITALIAN REACTIONS TO THE 1816 FAMINE

In the Austrian state of Lombardy-Venetia snow was still on the ground in April and May of 1816. There was extensive flooding throughout the peninsula; storms damaged dikes, rivers burst their banks and roads and bridges were interrupted. The grain had to be cut at the beginning of September because of early frosts. It was inedible anyway, suitable only for animal fodder. In areas of the southern Apennines where wheat cultivation had greatly expanded following the famines of 1764 and 1803, tenants – 'impoverished as a result of the meagre harvest and a multiplicity of debts' – demanded an exemption from tithes.⁵ The olives and grapes failed to ripen, lacking 'the usual heat of the summer', according to the United States consul at Livorno.⁶ Livestock mortality increased. The cold, damp weather reduced the supply of firewood. Both hemp and silk production

suffered. Honey was scarce, the bad weather having interfered with the normal activities of bees. There was a total failure of the chestnut crop, a staple in mountainous parts of Italy. Only Sicily and Sardinia were left unscathed – but Sardinia had already suffered its own dearth five years earlier.

Climate change was exacerbated by social and economic factors. With the Napoleonic wars just over, dislocation, unemployment and brigandage were rife. Trade had been disrupted. Military requisitions and taxation levied a heavy burden, especially on landowners, now keener than ever to safeguard (or reclaim) their privileges and resist change. The newly restored states of Italy enacted harsh measures to re-establish order and increase revenue. Conditions for many peasants were wretched. Those in the mountains of Lombardy-Venetia lived ‘in a pitiful state of hunger, misery and, it can almost be said, of desperation.’⁷ Peasants everywhere were absolutely dependent on the outcome of the harvest; agriculture, however, was in a parlous state. A contemporary, with reference to his own province of Padua, blamed the absenteeism of landlords, the excessive size of tenancies, the disproportion between meadowlands and cereal culture, insufficient manuring and a shortage of forage crops.⁸ Repeated harvest failures brought falling price levels – in all but foodstuffs, of course – while declining production further increased unemployment levels. Artisans and farmers were forced to pawn their tools, furniture and clothes. Sometimes this was to pay taxes and dues, which the Austrian authorities in northern Italy continued to levy throughout the crisis.⁹

The prolonged severe weather conditions affected all cereal crops. The price of wheat, rye, barley and oats increased, and by similar magnitudes. Since the four grains were substitutes for one another, the across-the-board price rise limited the potential to shift demand from higher- to lower-priced grains, as usually happened in periods of crisis. Most worrying to the Austrian overlords of Lombardy-Venetia was that the price of maize also soared – maize polenta was by now a staple food there. Famine conditions resulted virtually everywhere on the peninsula.

Most European states, and all peninsular Italian ones, responded to the harvest failure of 1816 by restricting the export of cereals. This limited the supply throughout Italy still further. Even after the successful harvest of 1817, the export of cereals from the Papal States remained strictly prohibited. Beginning in September 1816 port cities like Trieste, Venice, Genoa and Livorno were the sites of large-scale cereal imports, Italian governments having temporarily eased duties on imported wheat. The only supplies came from far away: Odessa, Constantinople, Alexandria and the United States. Buyers had to compete. In any case, this was of little benefit to the large numbers of poor in the rural and mountain areas outside the cities, who lacked the means to buy food at almost any price.

There was some government response in the states of Italy. Public soup kitchens were set up, along the lines implemented by count Rumford (Benjamin Thompson of Massachusetts) in Munich late in the previous century. The meagre 'Rumford soup' was mostly potatoes, barley and water, with the odd meat bone, but it was certainly better than nothing. Charitable institutions throughout Europe prepared their own variants of the soup, making use of ingredients available locally. The version prepared in the Veneto during the 1816 crisis was made from beans and animal bones.¹⁰ Udine's had no potatoes, making use of maize flour instead, since the latter crop was already a staple there.¹¹ That served at Naples's *Albergo dei Poveri*, the city's main orphanage, and subsequently throughout the Kingdom of Naples, even had chilli peppers in it.

COMPOSITION OF THE ECONOMIC SOUPS, ACCORDING TO THE METHOD ADOPTED IN NAPLES

An economic soup should combine savings, flavour, and healthfulness, making use of healthy ingredients and of the best quality. . . . Potatoes are a staple whose use is highly important and commendable in economic soups. . . . They are accompanied by one or different kinds of vegetables like cardoons, cabbage, water-cress, fennel, parsnips, onions, carrots, turnip greens, celery, tomatoes, parsley, and chervil. For the seasoning one can use lard, tallow or olive oil, but the soup is tastiest when seasoned with casseroleed veal or lamb kidneys, where available, crushed with garlic.

For a *cantaro** of soup:

Water, when reduced down – 68 *rotoli*

Potatoes – 15 *rotoli*

Dried beans – 4 *rotoli* 16½ *oncie*

Husked barley – 4 *rotoli* 16½ *oncie*

Vegetables – 2 *rotoli*

Casseroleed kidneys or other seasoning as above – 31 *oncie*

Salt – 1 *rotolo* 8 *oncie*

Dried red chilli pepper – 2 *oncie*

Toasted bread and baker's leavings – 3 *rotoli* 25 *oncie*

The evening before the soup is to be made one puts the husked barley and dried beans into two-thirds of the water in a kettle. The following morning four hours before midday one lights the fire, adds the red chilli pepper to the kettle, and brings it all to a gentle simmer, avoiding a rapid boiling, for a duration of two hours, adding the other third of hot water from time to time, and frequently stirring the soup with a wooden spoon so that it does not acquire a burnt taste. And after two hours, one adds the fat and the salt, and simmers the soup for



another half-hour, after which time one adds the potatoes, previously boiled, peeled and well mashed, and continues simmering for another half-hour. Then one removes the soup from the fire and leaves it another hour in the kettle with its own heat, then one pours it into pots and proceeds to distribute it. . . . Each ordinary portion of soup given consists of three-quarters a *rotolo*.

Source: *Collezione di quanto si è scritto di più importante e di più adatto intorno alla coltivazione ed uso delle patate* (Naples: Stamperia Simoniana, 1803), pp. 26–30.

* In Naples, there were 33 1/3 *oncie* in a *rotolo* (=0.89 kg) and 100 *rotoli* in a *cantaro* (=89.1 kg). Each portion corresponded to 0.67 kg, meaning that the recipe was intended to feed over 130 people.

In addition, workhouses were opened, infrastructure projects such as road-building enacted and seed corn distributed. Local officials were to identify the poor in their jurisdictions. Private charity distributed food, clothing and small sums of money.

But it was not enough. People furthest from the capital cities suffered most. In November 1816 the charity commission of the province of Padua worriedly reported that ‘two-thirds of the province is at death’s door and it’s not even December yet; what will happen between March and June?’¹² Mountain-dwellers in Lombardy were forced to subsist largely on roots and leaves. Inhabitants around Brescia and Bergamo were eating grass and roots. In Tramonti (Treviso) most inhabitants were walking corpses, reduced to eating hay.¹³ In Andreos (Udine), maize husks provided the poor with their only sustenance. In Gorizia ‘the population was reduced to a diet of lettuce and soup made from herbs, and on very many days had nothing to eat at all.’¹⁴ In Rome, according to a contemporary, the poor made do with impure, poorly risen bread, lupins, potatoes (horror!) and uncooked plants.¹⁵ This was paradise compared to Friuli, where deaths from starvation were reported in December 1816. Peasants unearthed maize and legume seeds in order to eat them. Fearing public violence, Austrian officials requested parish priests to preach a message of hope, forbearance and trust (in the government) in their sermons. Inevitably, granaries and bakeries were looted. There were assaults on people suspected of speculating in grain. A crowd in Verona threw stones at grain merchants and made off with some sacks of grain.¹⁶ However, these remained isolated acts rather than organized demonstrations – nothing like the widespread rioting that took place in other parts of Europe, like France or the Netherlands.¹⁷

One incident did occur. In May, ‘in the vicinity of Bologna’, ‘thousands of peasants’ there assembled on ‘the ringing of the tocsin’ and ‘laid waste all the

fields of rice, under the pretence that they infected the air', *The Times* (London) reported. The brief item went on to explain that rice cultivation had been introduced into the region some 15 years earlier and was not popular. The newspaper decried such 'disturbances', 'at a period when so great a dearth prevails in Italy'.¹⁸ But the incident is clearly indicative of the widespread fear of diseases associated with famine, particularly typhus, still linked to foul miasmas in the air, here believed to emanate from stagnant water.

In autumn of 1816, two doctors in the Tuscan town of Arezzo warned of the 'contagious fevers' that would surely result that coming winter when large numbers of desperate, famished people descended from the surrounding mountains in search of food and relief.¹⁹ And death rates did indeed rise sharply during the crisis. Contemporaries frequently reported cases of death from hunger; but disease took an ever worse toll. As far as modern medical opinion is concerned, starvation is rarely a direct cause of death. Instead, malnutrition alters a person's resistance to infection – while infectious disease aggravates a person's malnutrition. Famine and epidemics are linked because the standards of hygiene are lowered, resistance is reduced and contagion is promoted by the migration of people in search of food. The symptoms of starvation and infection become so interwoven that it is difficult to untangle them.

During the subsistence crisis of 1816, typhus – called 'spotted fever' in the English of the time and *tifo petecchiale* in Italian – was the most widespread epidemic disease. Typhus is spread through the faeces of the human body louse; virtually everyone had lice, of course, but malnutrition rendered people more susceptible to the disease. Both the louse and the infection thrived in the crisis conditions of 1816, as exhausted, malnourished people huddled together to keep warm, pawned their louse-ridden clothes, wandered about in crowds in search of food, and paid scant regard to hygiene. Typhus broke out on both sides of the Adriatic in 1816 and then ravaged all of Italy. The effects were devastating. In Naples, births plummeted and deaths peaked – the latter at a level which would only be repeated by the cholera epidemics later in the century.²⁰ In the province of Molise, also in the Kingdom of the Two Sicilies, births usually outnumbered deaths by a ratio of three to two, but in 1816 the numbers of births was level with the number of deaths, and in 1817 there were only 10,103 births to 19,733 deaths. Amongst other things, famine reduces conception rates.²¹ In the Tuscan Grand-Duchy, the victims of famine and disease, principally typhus, were estimated at twenty-five thousand.²² In the province of Padua, deaths increased from 11,079 in 1815 to 12,330 in 1816, and to 19,374 in 1817.²³ In Lombardy, typhus was preceded by scurvy and pellagra, diseases of nutritional deficiency. Pellagra was already regarded as a barometer of poverty, although its exact causes were still open to debate. A British physician, Henry Holland, wrote that pellagra cases had increased there 'in a

tenfold ratio during the last two years; the effect of bad harvests added to the preceding wars.²⁴

Added to this was the spectre of bubonic plague. In November 1815 plague was reported in Noja (Puglia; today's Noicottaro).²⁵ The town was promptly sealed off. The epidemic spread first through the poorest parts of the town, eventually killing 721 people, or one in seven of the Noja's population, before declining by May of the following year. The epidemic was attributed by contemporaries to the prevailing hunger, the result of three harvest failures in succession. With plague there is no direct link between nutrition and infection. In fact, the worst harvest failure, that of 1816, was still to come. Moreover in Italy only Noja was affected. The epidemic was probably due to the sea traffic with the plague-ridden Dalmation islands across the Adriatic.²⁶

THE POTATO SOLUTION

One possible solution to the repeated harvest failures and the resulting famine conditions was to plant potatoes. And this brings us to Francesco Chiarenti.

What's a reform-minded doctor to do? Having received his medical doctorate in Pisa (1785), having practised at Florence's hospital of Santa Maria Nuova, having matriculated into the city's College of Physicians (1787) and having written several medical studies (on the nerves, the gastric juices and the digestive process), Francesco Chiarenti turned to the French philosophies. Like many Tuscan intellectuals of his generation, Chiarenti was inspired by the reforms taking place in France. He even served as a member of the 'triumvirate' charged with governing the state of Tuscany in November 1800.²⁷ But with the creation of the Kingdom of Etruria by Napoleon, entrusted to Lodovico di Borbone (prince of Parma), Chiarenti was left with nothing to do. In 1801, at the ripe old age of 35, Chiarenti returned to his native Montaione, a town of around a thousand souls in the hills between San Miniato and Volterra. He may have continued to practise medicine there. For four years he served as the town's mayor. However during this time Chiarenti dedicated most of his energies to his extensive estates in the area. His efforts led to a study on the conditions of agriculture in the Tuscan Grand-Duchy, published in 1819 (Figure 1.1). The book earned Chiarenti a fellowship in Florence's reform-minded Accademia dei Georgofili the same year, where he later presented a couple of papers on the free trade in grain and viticulture. And yet, Chiarenti's passing, in 1828, merited only this comment from Raffaello Lambruschini: 'Poor Dr Chiarenti. His loss truly saddens me, because, despite some bizarre ideas, he must have been a valued and well-intentioned person.'²⁸

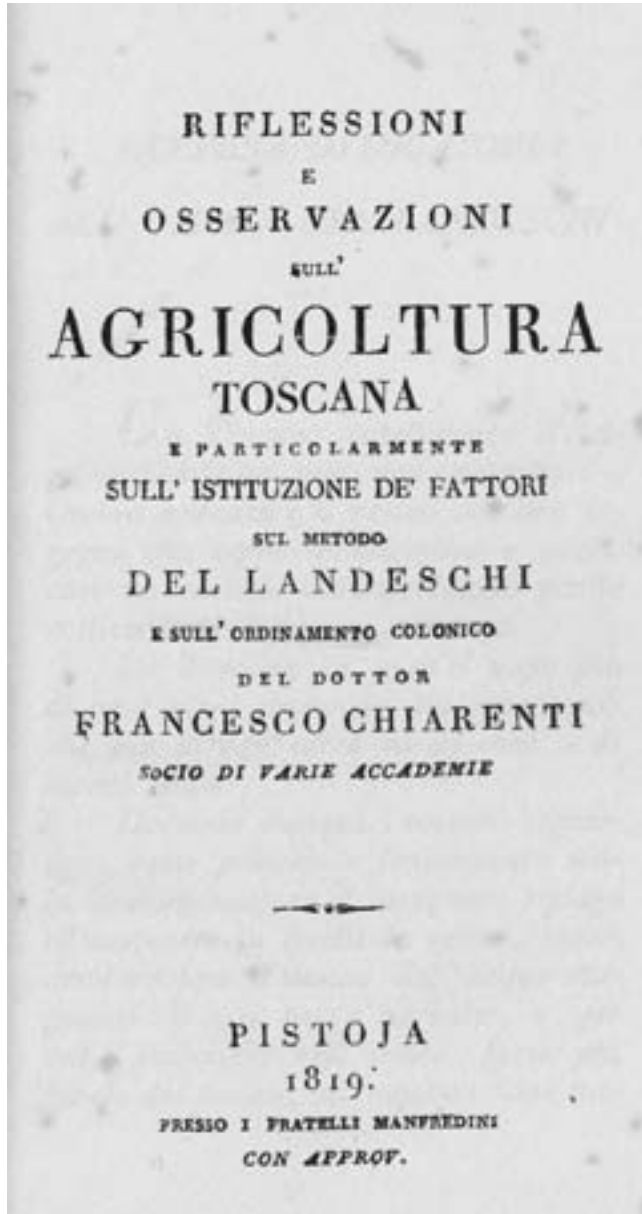


Figure 1.1 Title page of Francesco Chiarenti's *Riflessioni e osservazioni sull'agricoltura toscana* (Pistoia, 1819).

What ‘bizarre ideas’ was Lambruschini referring to? Chiarenti’s labours to educate and involve his tenant-farmers in the running of his estates? Or was it, perhaps, Chiarenti’s advocacy of the potato?

In retrospect, there was much to object to in Chiarenti’s 1819 *Riflessioni e osservazioni sull’agricoltura toscana* (Reflections and observations on Tuscan agriculture). First of all, there was his negative view of the state of agriculture in the Tuscan Grand-Duchy. ‘While all the arts and sciences have more or less advanced’, Chiarenti complains, ‘only agriculture, considered in all its breadth, has remained a child and has not known how to benefit from the progress in the arts related and auxiliary to it.’²⁹ This criticism came at a time when numerous reform-minded landowners were already at work in Tuscany improving their lands. Mountain areas, like the Pistoiese, were being developed, mountainsides terraced. In 1800 the agronomist Pellegrino Antonini purchased a large estate there, woodland considered good only for the production of charcoal, and proceeded to turn it into an experimental farm.³⁰ Agricultural and economic societies had sprung up all over the grand duchy, to provide a forum for the dissemination of these new ideas. The most prominent was Florence’s Accademia dei Georgofili. The agronomist Filippo Re recognized the Georgofili as ‘an establishment which more than any other has promoted agriculture’, leading to ‘the emulation of the most able agronomists’ throughout Tuscany ‘which resulted in printed works eminently suited to improving it.’³¹ Still, there was obviously much left to do, as far as Chiarenti was concerned.

Then there was Chiarenti’s explanation for this decline. Chiarenti puts the blame squarely on the shoulders of estate factors, for not implementing agricultural reforms, rather than on the peasants who worked the fields. Finally, there was Chiarenti’s solution. Landowners should take a direct interest in their lands. The investment required is minimal. ‘If the landowner offers the peasant the miserable recompense of a flask of wine, not only can he introduce some innovations but, if he wants, he can overturn all their ancient practices.’ Chiarenti gives the example of his ten resident tenant-farmers (*coloni*). They did not know how to build dikes or embankments on hilly terrain, in order to make it arable and regulate the water supply, much less consider this a worthwhile activity. Now, most of them do – to the point of carrying out the work on their own initiative, without needing to be overseen.³² Chiarenti has even taught them to plant potatoes!

If his approach sounds a bit patronizing, that’s because it was. In common with most of Europe’s agricultural reformers, Chiarenti’s motives were more ‘physiocratic’ than ‘philanthropic’: that’s to say, more concerned with the bigger agronomical picture than with individual peasants. Using potatoes to feed his peasants and his livestock was one of a series of concerns. Chiarenti reviews his efforts in chapter seven, entirely dedicated to the potato. Not only

was the potato largely ignored in Tuscany, Chiarenti notes; the lack of interest was most pronounced amongst the uneducated, with their suspicion of change and innovation.³³ But then came famine. 'Poverty and hunger, the only forces strong enough to re-awaken even the laziest and coarsest men, induced some of the most wretched populations in Tuscany to devote themselves to the cultivation [of potatoes] on a large scale.'³⁴ The harvest failure of 1816 persuaded the inhabitants of the Pistoiese, the Romagna, the Casentino and the Chianti areas of the Tuscan Grand-Duchy to plant potatoes. And the Pistoiese, Chiarenti boasts, 'distinguished itself above every other [province], because hunger struck more than in the others, [affecting] a larger number of people.'³⁵ Chiarenti himself increased potato cultivation on his lands eight-fold during the famine, to 800 pounds, half of which he distributed amongst his peasants for planting.³⁶

The Georgofili, while admitting Chiarenti to their Academy, did not share his negative view of Tuscan agriculture. They also objected to his criticism of landowners, as absentee and neglectful, and his proposals to educate estate factors. Evidently, they felt things had moved on since similar ideas had been voiced sixty years earlier by the Georgofili's founder, the abbé Ubaldo Montelatici. They did, however, approve of Chiarenti's technical proposals and solutions, which they acknowledged were the fruit of first-hand experience and careful study.³⁷ And they must have been thrilled to the passages about the potato, a subject much discussed in papers read before the Georgofili during this period.

'ONE OF PROVIDENCE'S MOST PRECIOUS GIFTS'

Why turn to the potato as a possible solution, as practised by the 'well-intentioned' Chiarenti? The proposal was not new of course. Potato cultivation had been tried before in Italy – twice in fact. In the words of the Tuscan agronomist Marco Lastri, writing in 1787, potatoes 'originate from America, and we became familiar with them in the middle of the previous century (i.e. the seventeenth century); but having been neglected, they were re-proposed in the last few years as something new.'³⁸ Lastri's work was printed again in the wake of the crisis of 1816, when potatoes were 'introduced' for a third time. It seems Italians were content with giving the potato a go once a century. Would this be third time lucky?

As we know, and as eighteenth-century reformers knew, the potato has a lot going for it (Figure 1.2). It makes an unrivalled famine food, either in the wake of harvest failure or intercropped with cereals. This is because the potato is extremely adaptable to climate and other environmental extremes, able to



Figure 1.2 The leaves and ‘fruit’ of the potato. In Giovanni Battista Occhiolini, *Memorie sopra il meraviglioso frutto americano chiamato volgarmente patata ossia pomo di terra con la descrizione della maniera di piantarlo, coltivarlo, del di lui vantaggio, del modo di ridurlo a farina, ed a pane, di cavarne amido, cipria, di farne salde, bosima &c.* (Rome: Giunchi, 1784).

grow at anything up to 4,000 metres above sea level. It also provides quick yields, with some varieties setting tubers after only 60 days, so it can be planted (say) after the grain crop has failed. The potato can be left underground, virtually hidden, and retrieved as needed, even meal by meal, keeping it safe from roving armies, bandits, wanderers or, indeed, tax-collectors searching for food to plunder or appropriate. This makes it attractive in times of strife or when

local populations want to hold on to what they have: an ideal 'escape crop' (as generations of Irish peasants, ever wary of their English overlords, already knew by this time).³⁹ In labour terms, it produces more calories and protein per unit area than any other major grain or root crop. In nutritional terms, when eaten in quantity, the potato provides the body with adequate calories, good quality protein and protective quantities of vitamin C. When properly stored and completely cooked, it is non-toxic, tasty and filling. And, of course, you can drink it (in its potent distilled form), as Saxon peasants were already starting to do, preferring cheaper potato schnapps to other spirits, much to the dismay of local doctors.⁴⁰ The potato's only limitation: it cannot be stored over multiple years (in contrast to cereals) or shipped easily. An obvious disadvantage for trade and in times of famine.⁴¹

The potato was not unknown in Italy. Agronomists in mountain areas of the south of Italy had had some limited success in establishing it in the wake of the 1803 famine (we shall return to this in Chapter 3). In Tuscany, landowners like Chiarenti had been planting potatoes on their lands 'for many years' – but not eating them. As Chiarenti notes in his *Riflessioni*, they grew potatoes to sell in the markets of the main towns of the Grand-Duchy, where they satisfied 'the demands of travellers from over the Alps rather than the general taste of Tuscans'.⁴² Likewise, Ranieri Barbacciani, from the town of Barga (in the mountains north of Lucca), commented on the presence of large quantities of potatoes of the white round type in Pisa and Livorno, both home to established British communities.⁴³ Indeed the British in Livorno – which of course they called Leghorn – had been eating potatoes from as early as the 1760s. It was from them that the geologist and superintendant of mines Giovanni Arduini learned 'what an agreeable food they were [. . .] and I got used to eating them and I like them very much'.⁴⁴ This was an internal border between Italy and northern Europe; but the exchange was limited. In the Venetian Republic, the English consul 'cultivates them with good success in his fine garden not far from Mestre, a place about five miles from Venice'. But, Giuseppe Baretta went on, 'few of his Italian guests will touch them'.⁴⁵

The English in Italy had to supply their own. For most, this meant buying from local markets, where sold, or from English ships in harbour, or growing them. But for Henry Swinburne, travelling in the south of Italy in the late 1770s, it meant carrying his own – a prized possession. As he boarded ship for the crossing from Sicily to Calabria, one cold February day, he and his two servants 'had only a few changes of linen, a mattress I had bought for the occasion, a sack of potatoes, and a keg of porter [. . .] our great coats, and the cloaths [sic] we then wore'.⁴⁶ For those travelling on foot, like the German author Johann Gottfried Seume in 1802, there was nothing to do but bemoan the absence of potatoes when offered yet another dish of 'the eternal macaroni'.⁴⁷

Local growers would respond if the demand was high enough. The main factor here was ‘the inundation of so many foreign armies that have flooded Italy for the past twenty years,’ wrote Filippo Re in 1817.⁴⁸ For a few years in the early 1800s the presence of English troops in Sicily led to the cultivation of potatoes around Palermo. Once the troops left, however, growers went back to cultivating other foodstuffs.⁴⁹ The same thing happened at the other end of the peninsula, at around the same time. During the Austrian occupation of Venice large quantities of potatoes were brought in from the department of Panaro (formerly part of the duchy of Modena), to feed the troops stationed there.⁵⁰ Potatoes were being sold at the market in Udine from 1815, which had come under Austrian rule the year before.⁵¹

But for more discriminating Austrian palates, only home-grown potatoes would do. One such was Maria Luigia, wife of Napoleon and duchess of Parma from 1814. The Parma region today may be one of Italy’s great food producing areas; but the fare of the ducal household was strictly Austrian. Barley, sauerkraut, peas and dried prunes were all imported. Potatoes make a frequent appearance on household menus dating from 1815: *à la crème*, fried and as potato salad. The potatoes, like Maria Luigia herself, were Austrian – though she came from Vienna, the potatoes were from Linz.⁵² The palace’s cuisine was hardly influenced by its Italian surroundings; just as it had little impact on the cookery of the Parma region.

The potato must have seemed a strange exotic to most Italians. A source of ridicule even. During the Austrian blockade of Venice in 1814 the magistrate count Sanfermo was granted permission by the French general Seras to cultivate potatoes in the Piazza d’Armi on the lagoon island of Giudecca. Perhaps he saw it as a means of feeding the beleaguered city. But Sanfermo ill-advisedly remarked that he hoped the blockade of city would last at least until he could harvest his potatoes. He was forever after known as ‘Count Potato.’⁵³

Despite the example of foreign residents dining on the potato, and the market demand this created, and ‘despite all the works written in support of large-scale potato cultivation, Tuscans had rather ignored it,’ in Chiarenti’s words.⁵⁴ The years 1815–17 were just the kind of subsistence crisis that prompted the ruling and cultural elites to introduce the potato – again. Authors and printers alike dirtied their hands with ink, if not with soil. In December 1816 the Florentine printer Leonardo Ciardetti approached Giuseppe Sarchiani, secretary of the Accademia dei Georgofili, for advice on the feasibility of reprinting two separate works on the potato as a single volume. Sarchiani’s response was so enthusiastic that Ciardetti published it as a preface to the volume.⁵⁵ In truth, Ciardetti could have had little doubt about the feasibility of printing a volume on the potato at such a time. There was a surge in titles dedicated to the tuber: publications about potatoes, like the potatoes themselves, appear in clusters. Literate landowners were hungry for information on something to plant which

might withstand the rigours of the changed climate, which gave them a return and fed their tenant-farmers. Printers rushed out to satisfy the demand.

Vincenzi in Modena quickly published a paper read before the local agrarian society ten years earlier (on the uses and keeping qualities of the potato).⁵⁶ In Florence alone, Ciardetti himself printed a second work, Guglielmo Piatti printed a further four titles, and the archiepiscopal printer, one. Within the space of a year, Verdiano Rimbotti's potato paper, first read to the Accademia dei Georgofili on 8 January 1817, had appeared as a short book printed by Piatti in Florence, then by F. Baroni in Lucca, then in a compilation of studies printed by Piatti and, finally, in a second, expanded edition printed by Ciardetti. Twelve potato titles were published in the maize-growing heartlands: five in Udine, four in Milan and three in Venice. In Pistoia, hardly a centre of the publishing world, the Manfredini brothers printed three other short works specifically dedicated to the potato, in addition to Chiarenti's treatise. (It is symptomatic of Chiarenti's practical approach to potato cultivation that, although all three works preceded his, he makes no reference to any of them.⁵⁷) Potato publications were not confined to the centre-north: seven works were printed in the Kingdom of Naples, often under the auspices of provincial agricultural societies.

In all, during the years 1815-19, at least 40 pamphlets or books on the potato were published in Italy. This included original works, re-editions and compilations; interestingly, there were no translations.⁵⁸ Interest in the potato was a significant factor in the general rise in the number of Italian publications devoted to agricultural topics. The number of such titles published in Italy went from an average of 50 per year in the period 1812-15 to double that (98) in the 20 years from 1816.⁵⁹ The fact that, between them, seven printers were responsible for 20 of the potato titles, suggests that there was a market for such works.

At least some of the print demand came from the civilian authorities who actively campaigned for the introduction of the potato. To make their entreaties more effective, they would enclose a potato pamphlet or handbill. Such was the case in the Tuscan Grand-Duchy, where handbills dedicated to the potato were already in circulation – like the one an Aretine patrician pasted to the inside cover of his handwritten 'book of secrets' in 1809 (Figure 1.3). At the height of the crisis, on 15 January 1817, Girolamo Bartolomei, of the Ufficio Generale della Comunità, wrote to all the towns in the Mugello (in the Apennines north of Florence) affected by famine. With each letter he enclosed a short book on potato cultivation. Bartolomei hoped it would serve:

to promote and encourage, with all possible zeal, the cultivation of the plant which, instead of being subject to the misfortunes deriving from the inclemency of the seasons, serves as a great resource for the sustenance of the indigent class, especially in the calamitous times of scarcity in cereal harvests.⁶⁰