

THE ROLE OF QUALITY: SPANISH WOOL IN PORTUGUESE TRADE IN THE EARLY NINETEENTH CENTURY

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Cross-referencing qualitative and quantitative statistics from handwritten Portuguese trade sources shows the Spanish in the first half of the 19th century using Portuguese trade to introduce their wool in English and other markets. High quality Spanish merino wool played a key role in Portuguese trade during this period, particularly in the golden years of 1809-1819 and 1825. Its quality intensified both legal trade and smuggling.

Given the sparse Spanish trade statistics from the period, the Iberian trade in Spanish wool can be studied quantitatively only with Portuguese sources. Earlier work on the impact of Spain on Portugal's external trade shows Spain supplying wool, cattle, and cereals, and demanding English fabrics and Brazilian cotton and leather.¹ This paper shows how important the quality of Spanish wool was to the shaping of the Portuguese market during the first half of the 19th century.

Available Spanish trade statistics cover only two years in the first three decades of the 19th century (1826 and 1827), while Portuguese balance of trade data covers thirty-one years between 1796 and 1831. Data on trade is sparse for both countries between 1832 and 1850; reports of Portugal's balance of trade have been found only for 1843 and 1848, and reports of Spain's only for 1849 and 1850. The following handwritten sources are key:

Consular correspondence

- Portugal's Balance of Trade with Foreign Nations and Portuguese Colonies
- Revenues from Merino Wool
- Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House.

Portuguese sources complement the sparse annual external trade statistics produced by Spain. They also allow determination not only of what kind of wool was involved, whether “clean or dirty,” but also its origin in Spain and its final destination, whether the Portuguese market or elsewhere. Studied closely, several sources also emphasize how the quality of Spanish wool made it attractive contraband: wool smuggling was an undeniable reality in helping satisfy Portuguese and international demand.

The revenue books, “Revenues from Merino Wool” and “Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House” are particularly useful for measuring the importance and origin of merino wool coming from Extremadura, Spain and re-exported daily via Lisbon: there are sixty-one books of “Revenues from Merino Wool” covering the periods from 1759 to 1762 and from 1778 to 1812, and fifty-seven books of “Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House” covering from 1813 to 1833. The last source also allows identification of the re-export market. All in all, quantities of re-exported Spanish wool covering fifty-nine years can be studied.²

Since the industrial revolution, wool has been an important raw material for the production of fabrics. The first half of the 19th century saw a great international demand for Spanish wool because of its superior quality, quality that came from its origin from merino sheep, from the selection process of those animals, and from the process of washing the wool.

The very name and kind of entries in “Revenues from Merino Wool” make it clear that the wool imported and re-exported by Portugal was merino wool. Merino sheep had been introduced to Spain from Morocco by King Pedro I of Castile in 1360 because of the high quality of its wool. As it was put in an 1830 article “Lana Merina” [Merino Wool] in “*Semanario de Agricultura y Artes*” [Agriculture and Arts Weekly], “All the beautiful breeds of sheep that exist at the moment in Europe descend from the Spanish.”³ According to Pastor Esteban, writer of an 1826 practical treatise on sheep rearing, Spanish merino sheep produced the finest wool.⁴

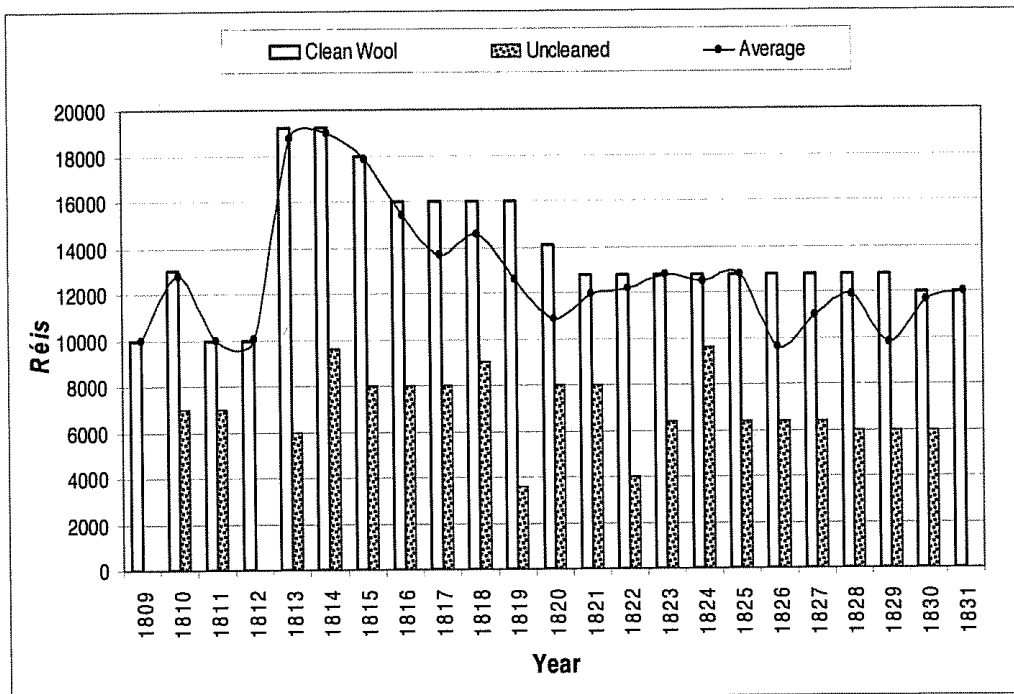
A questionnaire circulated in 1816 asked the consuls of various ports whether “any country appropriates any benefit from Spain and the means, quantity, quality and price involved.” The answers provide clear evidence that crossing native castes with Spanish merino sheep was seen as a way to improve wool quality in several markets. Spanish consuls in Paris, Danzig, Trieste and Russia all stated that the cross breeding of animals led to the improvement of the quality of wool.⁵

The importance of the quality of Spanish wool was also reflected by the attention given to the selection process. In the third decade of the nineteenth century the care to be given to flocks of sheep, whether “for their procreation, feeding and health or in order for the castes not to degenerate ...”⁶ was seen as indispensable. Precautions began with the selective mating of ewes with rams, so as to ensure “the best wool by the cleaning of the blood ...”⁷ Precautions were taken at the moment of delivery and continued “during the first week, where the newly born lambs would not be allowed to drink or eat away from their own habitats ...”⁸ Precautions were taken with respect to pasturing and feeding during the different seasons of the year: the “flock must be protected from rainy weather ... [d]uring the Summer [taken] ... to shady pastures and taking care to give them water twice daily ...”⁹

Because cleaned wool was valued more highly than dirty wool in the Iberian market, Spanish producers paid great attention to washing techniques. “Metodos de lavar la lana” [Wool washing methods], an article published in the “Semanario de Agricultura y Artes” [Agriculture and Arts Weekly], indicates four different methods used to obtain clean wool. Sheep could be sheared prior to the cleaning of the wool (the most frequent method used by Spanish producers). It could also be cleaned while still on the ram. The flock could be dipped in water. Another method was spraying the sheep with a hose.¹⁰ Whatever method of cleaning they used, Spanish producers also took care to dry, spin and sack the wool correctly. They always paid attention to the nature and properties of the product.

As Figure 1 reveals, the books of Portugal’s “Balance of Trade with Foreign Nations and Portuguese Colonies” show how wool was one of the main Spanish products imported by the Portuguese market. It also shows the premium that clean wool offered: the price of clean wool was, for most years between 1809 and 1831, approximately twice the price of dirty wool.

Figure 1. Imported Price of Spanish Wool in Portuguese Market (1809-1831)

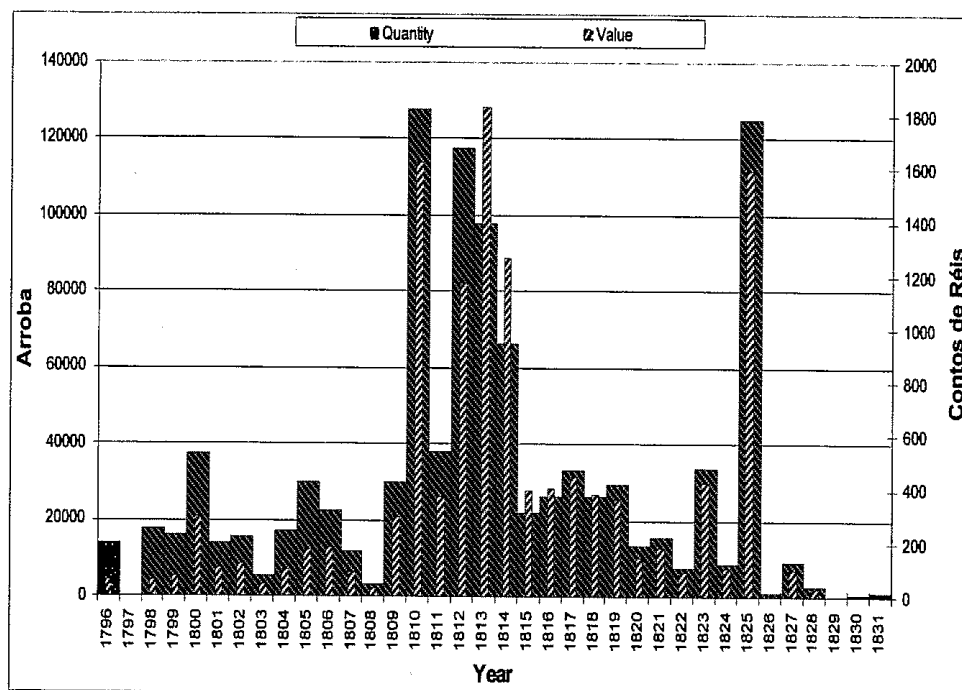


Sources: Arquivo Histórico do Rio de Janeiro, Rio de Janeiro, Brasil, “Balança Geral do Comercio do Reyno de Portugal com as Nações Estrangeiras em o anno de 1798 e 1808” [Portugal’s Balance of Trade with Foreign Nations and Portuguese Colonies in the years 1798 and 1808].

The highest Portuguese prices for imported clean wool were paid between 1813 and 1819 (16,000-19,200 réis per arroba¹¹). The years between 1809 and 1819 might be designated the “golden years,” during which the Portuguese market consistently imported high quantities or value of Spanish wool. As Figure 2 shows, imports were always above 300 contos and even rose to between 1,200 and 1,800 contos in 1810 and from 1812 to 1814. (Contos here means contos de réis, where réis were a monetary unit of the time: one

conto corresponded to one million *réis*). At the same time, the value of wool represented more than 30 percent of the total import value in 1813 and from 1815 to 1819, and it was more than 50 percent in the years 1810, 1812 and 1814.

Figure 2. Spanish Wool Imported by Portuguese Market (1796-1831)



Sources: 'Arquivo Histórico do Rio de Janeiro, Rio de Janeiro, Brasil, "Balança Geral do Commercio do Reyno de Portugal com as Nações Estrangeiras em o anno de 1798 e 1808" [Portugal's Balance of Trade with Foreign Nations and Portuguese Colonies in the years 1798 and 1808];

In the period from 1796 to 1831, 1823 should also be highlighted. The value of wool imports in 1822 was above 300 contos and was 47.4 percent of total imports. Even more significant was 1825, when wool accounted for more than 80 percent of imports, with a value of nearly 1,600 *contos*. Its value was all due to higher quantities, as there had been no significant change in the price level (see Figure 1). Indeed, the high import values of the golden years correspond to more wool being imported, varying between 26.5 to 127.7 *arrobas*. The amount imported was 127.7 *arrobas* in 1810, 117.6 thousand *arrobas* in 1812, 97.8 thousand *arrobas* in 1813, and 125 thousand *arrobas* in 1825. High values in annual wool imports in both 1810 and 1812 were attained mainly due to these quantities.

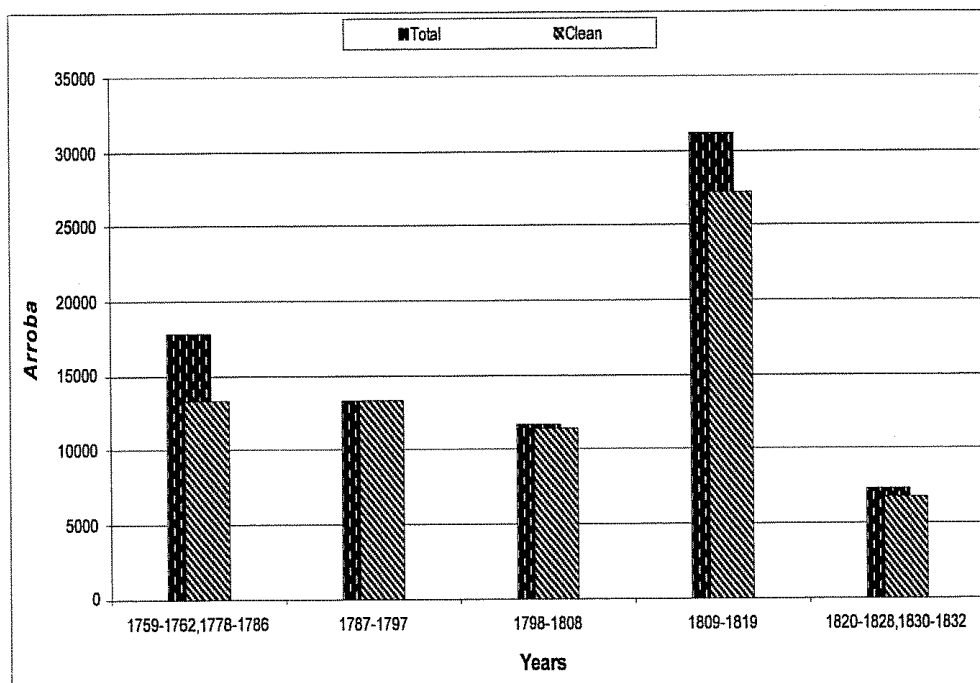
As shown in Figures 1 and 2, the highest value for wool imports (in 1813) was due to an increase in the price of wool of about 100 percent (from 10,000 to 19,200 *réis* per *arroba*). Although the imported quantities fell the following year, the value of imports remained significant due to the unchanging annual level price. In the third decade of the 1800s, the price levels remained stable for both clean and uncleaned wool at, respectively, 12,800 and 6,400 *réis* per *arroba*.

relevant from 1809 to 1819 than it would be later in the century. Imports in this period averaged 645 tons, achieving an average of 916 tons between 1809 and 1814. A record value of 1,438 tons was imported in 1825. Compare this with 1851 when, according to Carmen Espido Bello,¹² Portugal imported only 386 tons of wool from Spain.

Investigating the provenance of Spanish wool also requires analysis of “Revenues from Merino Wool” and the “Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House.” The balance of trade sources do not furnish information about the origins of the wool coming from Spain. The revenue sources, however show that most of the production came from Extremadura, a region of Spain near the Portuguese border east of Lisbon. On the Portuguese side of that border, Elvas and Mourão were the major points of entry into Portugal, showing that the dry ports were very important entrance points for the legal Spanish wool trade.

The revenue sources also provide data on the amount of re-exported wool. Again, the years from 1809 to 1819 proved to be the ones with the greatest quantities. Re-exports were especially important during the last five months of the year because of the need to satisfy the peak seasonal demand for wool as a raw material for industry and following the May sheep shearing season. To show how much clean Spanish wool was re-exported through the Portuguese market the data was grouped into a series of eleven-year periods. The results are shown in Figure 3. It shows that quantities of re-exported clean wool are very similar to the total quantities of re-exported wool (clean wool plus dirty wool). Clearly, the demand for Spanish re-exported wool was mainly for clean wool.

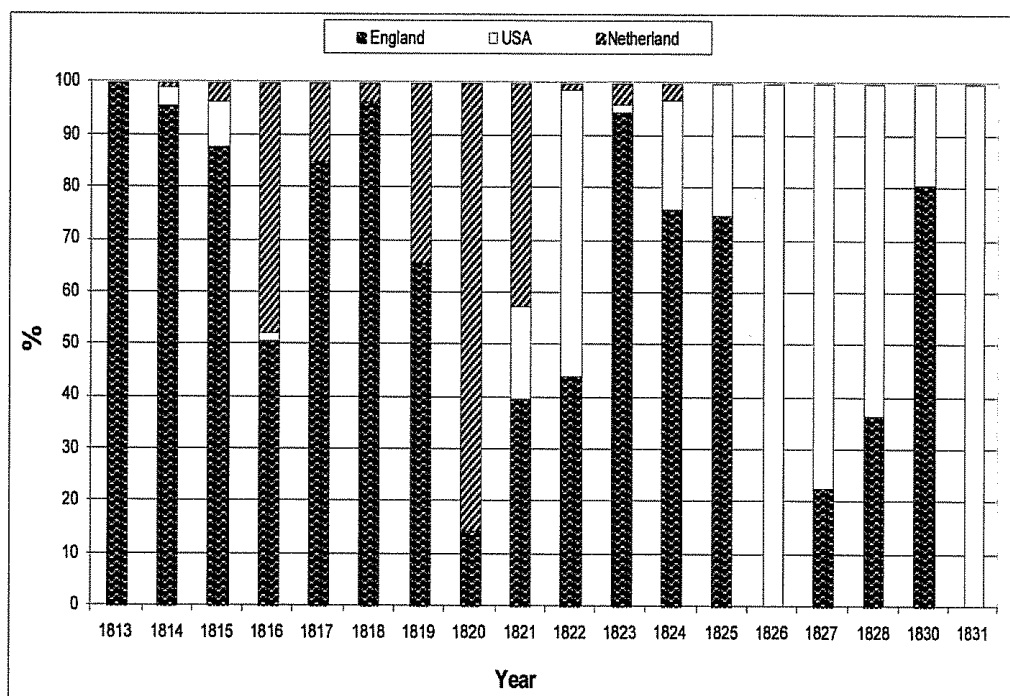
Figure 3. Quantities of Spanish Wool Re-exported through Portuguese Market by Periods (1759-1832)



Sources: Arquivo Nacional da Torre de Tombo, Lisbon, Portugal, “Receita das lãs merinas” [Revenues from Merino Wool], boxes 406, 417, 423, 469 (1 and 2), 1118 to 1133, 1137 to 1175, “Receita das baldeações, reexportações e aluguer de armazéns” [Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House], boxes 243 to 278; boxes 539 to 557.

The data on “Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House” also identifies the main destinations in the international market for the Spanish wool re-exported by Portugal (see Figure 4). The main destination market for this highly valuable Spanish re-exported wool was England, through the ports of Liverpool and London. The United States (Boston, New York and Philadelphia) and The Netherlands (Amsterdam) were also important but had a smaller share of the market. Cross-referencing “Portugal’s Balance of Trade” with “Revenues from Merino Wool” and “Revenues pertaining to Shipment,” reinforces the earlier finding: with the exception of 1813, the major quantities of imported and re-exported wool coincide during the period 1809-1819.

Figure 4. Main Destinations in International Market for Spanish Wool Re-exported by Portugal (1813-1831)



Sources: “Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House.” The year 1829 does not provide legible data for this research.

The role of Spanish wool in trade between Portugal and Spain was, in fact, far more significant than these numbers suggest. However, these numbers do not reflect one irrefutable reality: the smuggling of wool. Illegal traffic was a constant concern of consular

correspondence during the golden years. A letter by D. Ignacio de Pezuela of Lisbon on January 15, 1814, presents data showing that the losses from smuggling incurred by Spain in the years 1810, 1811 and 1812 accounted for more than two million *reales*.¹³ Every endeavor was made to make unlawful trafficking more difficult and to ensure that Spain did not lose its customs duties.

Consular correspondence between Portugal and Spain also alludes to the quantities, means of transportation by both land and sea, points of departure and arrival, and even names of those involved in the unlawful trafficking. It notes that one of the most efficient means of ensuring successful smuggling was through forging the ports of destination on documents and permits. Another was by transferring the wool-packs while at sea directly to boats heading for other foreign ports in order to avoid the payment of duty.¹⁴

A pressing need existed, therefore, to slow down the contraband market that affected the Spanish treasury and Portuguese-Spanish trade relations. Measures undertaken included making a list of suspicious dealers and operations using both direct observation and an inventory of the transacted deals. Other measures included the imposition of permits confirming payment of the particular customs duties.

Correspondence between Spanish and Portuguese government officials underscores how seriously they took the smuggling issue. One letter, dated November 16, 1810 and written by D. Juan del Castillo y Carroz, the Spanish king's Minister in Lisbon to the War Minister, notes how Portuguese ports were being used as trade platforms for Spanish merino sheep from Extremadura destined for the British and United States markets, and suggests some working guidelines as the trade was indeed a profitable and successful one: "it is further known that despite the fact that a third or a fourth of the total amount of the load on the ship dies, this trade is still extremely profitable ..."¹⁵

The constant correspondence between the two governments, which might also be analyzed in a much broader geopolitical context, sets out action lines precisely at the time of the greatest imports of Spanish wool from Portugal. However, whether due to a lack of appropriate measures, enforcement resources, or interest, it was impossible to prevent the flow of contraband wool. The illegal trade continued to be too promising for those who profited from it: "despite the strict orders given to impede the extraction of merino sheep from Spain, it is nevertheless largely verifiable...because the people who should be guarding this issue are indeed those who are most interested in fostering it."¹⁶

Conclusion

Combining four sources regarding Portuguese trade with Spain—consular correspondence, balance of trade statistics, merino wool revenues, and revenues pertaining to re-exports from Lisbon—highlights the essential role that quality Spanish wool played in the international economy during the first half of the 19th century, particularly between 1809 and 1819 and in the year 1825. In fact, the Iberian trade of Spanish wool can only be studied through Portuguese quantitative sources, which alone provide a continuous set of data for the first half of the 19th century. Lisbon customs data allows tracing of the destination of re-exported wool between 1813 to 1833 and enables us to conclude that, through the Portuguese market, Spain not only assured a supply of

wool to Portugal, but supplied other markets, most particularly the English market, through both trade in legal wool and trade in contraband wool.

Consular Correspondence of the first half of 19th century regularly noted the negative effects of the undeclared wool trade. The evidence of regular and substantial contraband routes, however, also reflects the significant demand which existed for Spanish wool at the time. As a synthesis of both quantitative and qualitative Iberian trade information makes clear, it was the quality of Spanish merino wool that made that demand significant.

NOTES

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1. Maria Cristina Moreira, “La importancia del mercado español en el comercio exterior portugués (1796-1831)” [The Importance of Spanish Market in Portuguese External Trade (1796-1831)], *Hispania Nova Revista de Historia Contemporánea* 6 (2006), [http:// hispanianova.rediris.es](http://hispanianova.rediris.es).
2. Arquivo Histórico do Rio de Janeiro, Rio de Janeiro, Brasil, “Balança Geral do Commercio do Reyno de Portugal com as Nações Estrangeiras em o anno de 1798 e 1808” [Portugal’s Balance of Trade with Foreign Nations and Portuguese Colonies in the years 1798 and 1808]; Instituto Nacional de Estatística, Lisbon, Portugal, “Balanças Gerais do Comércio do Reyno de Portugal com os seus Domínios Ultramarinos e Nações Estrangeiras” [Portugal’s Balance of Trade with Foreign Nations and Portuguese Colonies] of 1796-1797, 1799-1807, 1809-1821, 1924-1831; Ministério das Obras Públicas, SGC5, Lisbon, Portugal, “Balanças Gerais do Commercio do Reyno de Portugal com o seus domínios com as Nações Estrangeiras em 1822” [Balances of Trade with Foreign Nations and Portuguese Colonies in the year 1822]; Arquivo Nacional da Torre de Tombo, Lisbon, Portugal, “Receita das lãs merinas” [Revenues from Merino Wool], boxes 406, 417, 423, 469 (1 and 2), 1118 to 1133, 1137 to 1175, “Receita das baldeações, reexportações e aluguer de armazéns” [Revenues pertaining to Shipment, Re-exportation and Rental of Warehouses at the Lisbon Customs House], boxes 243 to 278; boxes 539 to 557.
3. “Lana Merina” [Merino Wool], *Semanario de Agricultura y Artes [Agriculture and Arts Weekly]*, 72 November 11, 1830: 288, Archivo Histórico Nacional Estado, Estado: 5483.
4. Pastor Esteban, “Tratado práctico de ganaderia merina” [Practical treatise on merino sheep rearing], mentioned in Angel García Sanz, “Algo más sobre el final de la mesta y la crisis de la trashumancia: a propósito de la publicación de un “tratado práctico de ganaderia merina” escrito en 1826” [Something more on the end of mesta and the crisis of transhumance: on the publication of a ‘Practical treatise on merino sheep rearing’], *Agricultura y Sociedad [Agriculture and Society]* 34 (1985), 295, 297.

5. Diego García y Campoy, “Contestaciones dadas por los cónsules de España en los varios puertos extranjeros, que se espresarán al interrogatorio de preguntas que sobre nuestras relaciones mercantiles se les hizo en 10 de junio de 1816” [Answers given by the Spanish Consuls at different foreign ports to the enquiry about our trade relations made on 10th June 1816], *Sistema general de las aduanas de la monarquía española en ambos emisferios: aprobado por las Córtes ordinarias del año de 1820* [General system of the Customs of the Spanish Monarchy in both hemispheres: approved by the Courts in the year 1820] (Tomo I, Madrid, 1820). See also the more detailed study of the washing of wool of Miguel Mélon Jiménez, “Los trabajos de la ganadería y la trashumancia” [The work of animal husbandry and transhumance] *Trabajo y ocio en la Edad Moderna*, [Work and leisure in Modern Age(s)] Ribot and Rosa, eds. (Valladolid, 2001), 37-63.
6. Angel García Sanz, “Algo más sobre,” 295.
7. *Semanario de Agricultura y Artes* [Agriculture and Arts Weekly] 106, (July 21, 1831), 422. Consular Correspondence. Archivo Histórico Nacional Estado: 5484, Madrid, Spain.
8. Ibid.
9. Ibid.
10. “Metodos de lavar la lana” [Wool washing methods], *Semanario de Agricultura y Artes* [Agriculture and Arts Weekly] 106, (July 21, 1831), 422. Consular Correspondence. Archivo Histórico Nacional Estado: 5484, Madrid, Spain.
11. *Arroba* was used as a measure of quantity, one Spanish *arroba* being the equivalent of 11.5 kilograms. Natividad de la Puerta, “Las fuentes cuantitativas en el estudio de los puertos desde la historia económica. Un ejemplo: el puerto de Bilbao” [Quantitative sources in the study of ports from economic history. An example: the port of Bilbao] *Estudis Baleàrics* 43 (Balearics, 1992), 18.
12. Carmen Espido Bello, “As relaciones económicas hispano-portuguesas 1850–1920” [Economics Relations between Spain and Portugal 1850-1920], (Ph.D. diss., Santiago de Compostela University, 1995).
13. Consular Correspondence. Archivo Histórico Nacional, Estado: 5381 (2)–5382 (1). Madrid, Spain. The *Real* was the Spanish monetary unit and was equivalent to 40 réis. See Maria Cristina Moreira “Relaciones Comerciales Luso-españolas (1774-1860)” [Trade Relations between Portugal and Spain, (1774-1860)], Ph.D. diss., Navarra University, 2002.
14. Consular Correspondence. Archivo Histórico Nacional, Madrid, Estado: 4504 (1), Madrid, Spain.
15. Consular Correspondence. Archivo Histórico Nacional, Estado: 4510 (2), Madrid, Spain.
16. Consular Correspondence. Archivo Histórico Nacional, Estado: 4494 (2), Madrid, Spain.

