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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Materials. Table S1.-** Information on 34 *ammasso* silos. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Region** | **Province** | **Town/Vilage** | **Geolocation** | **Year when built** | **Ownership** | **Use** | **State of conservation** | **Typology** | **Capacity (t)** | **Height (m)** | **Ground plan** | **Roof shape** | **Tower position** | **No. storage cells** | **No. rows of cells** | **No. cells per row** | **Cells shape** | **Heigh of cells (m)** | **Position rows cells** | **No. elevators** | **Nº upper-storey horizontal conveyors** | **Nº lower-storey horizontal conveyors** | **Dust suction system** | **Grain cleaning machinery** | **Lift** | **Railway** |
| Campania | Benevento | Benevento | 41°08'20.4"N 14°46'27.4"E | 1938 | AG | GS | 1 | BG+2 | 2,800 | 16,0 | R | 2 | F | 61 | 3 | 7 | S | 4 | C | 2 | 1 | 1 | Y | Y | No | No |
| Emilia Romagna | Ferrara | Bondeno | 44°53'30.9"N 11°25'02.5"E | 1938 | AG | WU | 2 | BG+3 | 3,600 | 25,0 | R | 2 | FBC | 70 | 4 | 4-5 | S | 5 | C | 2 | 1 | 2 | Y | Y | No | No |
| Emilia Romagna | Metrop. city of Bologna | Budrio | 44°31'56.5"N 11°31'50.7"E | 1936 | M | R | 5 | BG+3 | 3,500 | 22,0 | R | 2 | FBC | 104 | 4 | 4 | S | 4-5 | C | 2 | 1 | 1 | Y | Y | No | No |
| Emilia Romagna | Metrop. city of Bologna | Castel San Pietro T. | 44°24'25.1"N 11°35'46.9"E | 1933 | PC | R | 5 | BG+3 | 2,000 | 20,0 | R | 2 | F | 80 | 5 | 4 | S | 4-5 | C | 2 | 1 | 1 | Y | Y | No | No |
| Emilia Romagna | Metrop. city of Bologna | Pieve di Cento | 44°42'40.6"N 11°18'14.0"E | 1933 | F | R | 5 | BG+3 | 2,000 | 20,0 | R | 2 | F | 44 | 4 | 4 | S | 5 | C | 2 | 1 | 1 | Y |  | No | No |
| Emilia Romagna | Metrop. city of Bologna | S. Lazzaro di Savena | 44°27'42.4"N 11°25'53.3"E | 1937 | AG | R | 5 | G+1 | 3,900 | 10,0 | R | F-2 | F | 33 | 3 | 11 | S-R | 5.5-11 | C | 1 | 1 | 1 | No | No | No | No |
| Emilia Romagna | Piacenza | Piacenza | 45°02'39.7"N 9°42'54.1"E | 1935 | AG | WU | 3 | BG+5 | 16,000 | 40,0 | R | F | EI | 218 | 6 | 7 | S | 5 | C | 4 | 1 | 1 | Y | Y | Y | Y |
| Friuli Venezia Giulia | Pordenone | Pordenone | 45°57'33.1"N 12°39'07.0"E | 1923 | PC | GS | 1 | V | 7,000 | 27,0 | R | F | F | 36 | 3 | 12 | S | 20 | R | 2 | 1 | 1 | Y | No | Y | Y |
| Lazio | Metropolitan city of Rome | Rome | 41°51'58.2"N 12°28'25.0"E | 1935 | F | R | 4 | BG+3 | 15,000 | 33,4 | R | F | CI | 172 | 4 | 9 | S | 5 | C | 3 | 4 | 4 | Y |  | No | Y |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lazio | Viterbo | Tarquinia | 42°14'55.0"N 11°45'09.1"E | 1938 | AG | GS | 1 | V | 5,000 | 24,0 | R | F | FBC | 24 | 4 | 6 | S | 15 | R | 3 | 1 | 2 | Y | Y | No | No |
| Lombardy | Bergamo | Bergamo | 45°41'27.9"N 9°41'20.5"E | 1939 | AG | WU | 3 | BG+3 | 10,000 | 24,0 | R | S | FBC | 136 | 6 | 6 | S | 4-5 | C | 6 | 2 | 4 | Y | Y | No | Y |
| Lombardy | Brescia | Rovato | 45°33'03.6"N 10°00'37.3"E | 1938 | AG | WU | 3 | BG+2 | 12,000 | 16,0 | R | S | FBC | 220 | 6 | 12 | S | 4-5 | C | 6 | 2 | 4 | Y | Y | No | Y |
| Lombardy | Lodi | Lodi | 45°18'34.6"N 9°29'40.0"E |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lombardy | Lodi | S. Angelo Lodigiano | 45°14'10.4"N 9°24'36.0"E |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lombardy | Metropolitan city of Milano | Corbetta | 45°28'10.0"N 8°55'13.5"E | 1938 | AG | WU | 3 | G+1 | 3,500 | 28,0 | R | F-2 | FBC | 30 | 3 | 10 | S-R | 5.5-11 | C | 1 | 1 | 1 | No | No | No | No |
| Lombardy | Metropolitan city of Milano | Gaggiano | 45°24'29.9"N 9°01'50.1"E | 1938 | AG | WU | 3 | G+1 | 3,500 | 28,0 | R | F-2 | FBC | 30 | 3 | 10 | S-R | 5.5-11 | C | 1 | 1 | 1 | No | No | No | Y |
| Lombardy | Milano | Solaro | 45°37'05.2"N 9°04'46.1"E | 1937 | M | R | 5 | G+1 | 3,500 | 16,0 | R | S | FBC | 30 | 3 | 10 | S-R | 5.5-11 | C | 1 | 1 | 1 | No | No | No | No |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5.5-11 |  |  |  |  |  |  |  |  |
| Lombardy | Monza and Brianza | Desio | 45°36'32.0"N 9°12'07.4"E | 1938 | AG | WU | 3 | G+1 | 3,500 | 28,0 | R | F-2 | FBC | 30 | 3 | 10 | S-R | 5.5-11 | C | 1 | 1 | 1 | No | No | No | No |
| Lombardy | Pavia | Voghera | 44°59'43.2"N 8°59'29.4"E | 1939 | AG | WU | 3 | BG+3 | 5,500 | 25,5 | R | F-2 | FBC | 132 | 5 | 6 | S | 4-5 | C | 3 | 2 | 3 | Y | Y | No | No |
| Marche | Ancona | Jesi | 43°31'16.6"N 13°15'03.2"E | 1934 | AG | GS | 1 | BG+3 | 2,400 | 27,3 | R | F | CI | 48 | 3 | 6 | S | 5 | C | 2 | 1 | 1 | Y | Y | No | No |
| Marche | Fermo | Porto S. Giorgio | 43°10'20.3"N 13°48'00.7"E | 1935 | AG | WU | 4 | BG+3 | 3,000 | 23,6 | R | 2 | F | 120 | 5 | 6 | S | 4-5 | C | 2 | 1 | 2 | Y |  | No | No |
| Piedmont | Cuneo | Saluzzo | 44°39'08.7"N 7°29'41.0"E | 1933 | AG | WU | 3 | BG+2 | 2,400 | 17,0 | R | F-2 | FBC | 51 | 3 | 5-6 | S | 4-5 | C | 2 | 1 | 1 | Y | Y | No | No |
| Piedmont | Torino | Chivasso | 45°11'10.6"N 7°53'21.8"E | 1937 | AG | WU | 3 | BG+3 | 6,300 | 21,0 | R | F | FBC | 80 | 3 | 6-7 | S | 4-5 | C | 3 | 1 | 1 | Y | Y | No | No |
| Piedmont | Torino | Poirino | 44°54'49.6"N 7°50'55.9"E |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Puglia | Foggia | Foggia | 41°28'11.2"N 15°33'05.8"E | 1937 | PC | WU | 3 | V | 40,000 | 30,0 | R | S | CI | 640 | 24 | 18-36 | S | 20 | R | 6 | 6 | 6 | Y |  | No | No |
| Puglia | Metropolitan city of Bari | Gravina in Puglia | 40°49'33.8"N 16°24'53.2"E | 1933 | PC | R | 4 | V | 18,000 | 26,0 | R | F | CI | 96 | 8 | 12 | S | 15 | R | 4 | 4 | 4 | Y |  | No | No |
| Sardegna | Metropolitan city of Cagliari | Cagliari | 39°14'10.6"N 9°05'45.9"E | 1938 | AG | WU | 3 | BG+5 | 5,200 | 35,0 | R | F | FBC | 96 | 3 | 6 | S | 4-5 | C | 2 | 1 | 1 | Y | Y | No | No |
| Sardegna | Metropolitan city of Cagliari | Cagliari Port | 39°12'38.6"N 9°06'13.1"E |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sardegna | Oristano | Arborea | 39°46'26.1"N 8°34'47.9"E | 1937 | M | R | 4 | V | 2,500 | 23,0 | R | F | FBC | 24 | 3 | 8 | S | 10 | R | 2 | 1 | 1 | Y | Y | No | No |
| Tuscany | Arezzo | Arezzo | 43°27'42.9"N 11°51'18.6"E | 1938 | AG | WU | 2 | V | 3,500 | 22,0 | R | F | F | 18 | 3 | 6 | S-R | 18 | C | 2 | 1 | 1 | Y | Y | No | Y |
| Tuscany | Grosseto | Albinia | 42°30'08.1"N 11°12'35.4"E | 1937 | AG | WU | 2 | V | 4,800 | 22,0 | R | F | F | 24 | 4 | 6 | S | 12 | R | 3 | 1 | 1 | Y | Y | No | No |
| Tuscany | Grosseto | Grosseto | 42°45'45.6"N 11°06'27.4"E | 1933 | AG | GS | 1 | V | 4,800 | 22,0 | R | F | F | 24 | 4 | 6 | S | 12 | R | 3 | 2 | 2 | Y | Y | No | No |
| Tuscany | Pisa | Saline di Volterra | 43°21'41.0"N 10°48'45.6"E | 1937 | AG | WU | 2 | BG+2 | 1,900 | 17,0 | R | F-2 | EI | 32 | 2 | 6 | S | 5 | C | 2 | 1 | 1 | Y | Y | No | Y |
| Tuscany | Siena | Asciano di Siena | 43°13'57.1"N 11°33'46.5"E | 1937 | AG | GS | 1 | V | 2,900 | 27,8 | R | F | F | 15 | 3 | 5 | S | 17 | R | 2 | 1 | 1 | Y | Y | No | No |
| Geolocation: coordinates ETRS 89 Use 32-33. Ownership: AG: agricultural consortium; PC: private company; F: foundation; M: municipality. Use: GS: grain storage: R: reused; WU: without use. State of conservation: 1: good condition; 2: fair condition; 3: unusuable; 4: under rehabilitation; 5: refurbished building; 6: demolished. Typology: V: vertical cells; G+1: Ground floor and first floor with sloping floor; BG+2: basement, ground floor and two more floors; BG+3: basement, ground floor and three more floors; BG+5: basement, ground floor and five more floors. Ground plan: S: square; R: rectangular. Roof shape: F: flat roof; 2: gable roof; F-2: flat in tower and gable roof in the rest; S: sawtooth roof. Tower position: CI: central tower integrated in the silo; EI: eccentric tower integrated in the silo; F: front tower; FBC: front tower between two cells or offices. Form of cells: S: Square; R: rectangular. Position rows cells: R: cells raised off ground storey floor; C: cells resting directly on the ground of each storage floor. Dust suction system: Y: exist; No: does not exit. Grain cleaning machinery: Y: exist; No: does not exit. Lift: Y: exist; No: does not exit. Railway: Y: exist; No: does not exit. | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| **Supplementary Materials. Table S2.-** Indicators for 30 municipalities in Italy, sites of 30 silos. | | | | | | | | |
| **Region** | **Province** | **Village/Town** | **Population** | **Demographic pattern** | **Annual village budget (€)** | **Economic activity** | **Land communications** | **Distance to larger urban centres (km)** |
| Campania | Benevento | Benevento | 57,456 | 0 | 72,214,389 | 1, 2, 3 | SM, T | Napoli 67, Foggia 112 km, Bari 198, Rome 231. |
| Emilia Romagna | Ferrara | Bondeno | 13,736 | -1 | 14,004,175 | 1, 2 | P, T | Ferrara 19, Bologna 66, Modena 55, Padova 90, Parma 114. |
| Emilia Romagna | Bolonia | Budrio | 18,518 | 1 | 20,313,585 | 1, 2 | P, T | Bologna 21, Ferrara 48, Modena 56, Ravena 73. |
| Emilia Romagna | Metropolitan city of Bologna | Castel San Pietro Terme | 20,824 | 1 | 23,415,728 | 1, 2 | SM, M, T | Bologna 27, Ravena 59, Ferrara 65, Modena 71. |
| Emilia Romagna | Metropolitan city of Bologna | Pieve di Cento | 7,013 | 1 | 11,725,651 | 1, 2 | P | Ferrara 34, Bologna 31, Modena 40, Parma 100. |
| Emilia Romagna | Metropolitan city of Bologna | San Lazzaro di Savena | 29,446 | 0 | 30,218,024 | 1, 2 | SM, M, T | Bologna 8, Ravena 59, Modena 54, Ferrara 56. |
| Emilia Romagna | Piacenza | Piacenza | 102,355 | 1 | 166,796,679 | 1, 2, 3 | M, T | Parma 64, Milano 72, Genoa 150, Torino 182 km. |
| Friuli Venezia Giulia | Pordenone | Pordenone | 50,538 | 0 | 149,124,122 | 1, 2, 3 | M, T | Údine 52, Venezia 95, Padova 114, Trieste 110 km. |
| Lazio | Metropolitan city of Rome | Rome | 2,857,321 | 1 | 6,519,641,730 | 2, 3 | M, T | Civitavecchia 75, Viterbo 106, Terni 103, Teramo 172, Napoli 223. |
| Lazio | Viterbo | Tarquinia | 16,268 | 2 | 28,661,092 | 1, 3 | M, T | Civitavecchia 22, Viterbo 44, Rome 90, Terni 98. |
| Lombardy | Bergamo | Bergamo | 122,161 | 2 | 178,496,962 | 2, 3 | SM, M, T | Milano 52, Brescia 52, Piacenza 110, Verona 116. |
| Lombardy | Brescia | Rovato | 19,198 | 2 | 19,320,595 | 1, 2 | M, T | Brescia 23, Milano 76, Verona 86, Piacenza 122. |
| Lombardy | Metropolitan city of Milano | Corbetta | 18,740 | 1 | 18,954,718 | 1, 2, 3 | P | Milano 31, Novara 32, Piacenza 97, Torino 125, Genoa 158. |
| Lombardy | Metropolitan city of Milano | Gaggiano | 9,233 | 2 | 12,418,729 | 1, 2, | SM, T | Milano 22, Pavia 30, Piacenza 75, Torino 138, Genoa 139. |
| Lombardy | Milano | Solaro | 13,884 | 1 | 11,558,079 | 1, 2 | SM, T | Milano 27, Bergamo 60, Torino 147, Genoa 166, Zurich 261. |
| Lombardy | Monza and Brianza | Desio | 41,635 | 2 | 52,492,711 | 1, 2 | SM, T | Monza 9, Milano 23, Como 35, Bergamo 50, Varese 60. |
| Lombardy | Pavia | Voghera | 38,456 | 0 | 142,873,911 | 1, 2 | SM, M, T | Piacenza 61, Milano 69, Genoa 90, Bologna 212, |
| Marche | Ancona | Jesi | 40,303 | 0 | 131,528,298 | 1, 2, 3 | SM, T | Ancona 32, Pesaro 72, Perugia 101, Pescara 182, Rome 263. |
| Marche | Fermo | Porto S. Giorgio | 16,243 | 1 | 37,045,640 | 1, 2, 3 | SM, M, T | Ancona 61, Pescara 102, Perugia 153, Rome 245. |
| Piedmont | Cuneo | Saluzzo | 16,153 | 0 | 20,755,614 | 1, 2 | P, T | Torino 61, Genoa 160, Milano 200, Grenoble 281. |
| Piedmont | Turín | Chivasso | 26,275 | 0 | 22,147,358 | 1, 2 | M, T | Torino 23, Milano 130, Piacenza 178, Genoa 185. |
| Puglia | Foggia | Foggia | 144,586 | 0 | 197,479,903 | 1, 3 | M, T | Bari 133, Napoli 163, Pescara 185, Tarento 217. |
| Puglia | Metropolitan city of Bari | Gravina in Puglia | 42,821 | 1 | 67,621,357 | 1, 2, 3 | SM, T | Bari 62, Taranto 90, Foggia 132, Napoli 222. |
| Sardegna | Cagliari | Cagliari | 149,883 | -1 | 422,640,391 | 1, 2, 3 | SM, M, T | Oristano 94, Nuoro 180, Sassari 212, Olbia 259. |
| Sardegna | Oristano | Arborea | 3,927 | 0 | 6,812,338 | 1 | P | Cagliari 98, Nuoro 103, Sassari 137, Olbia 183. |
| Tuscany | Arezzo | Arezzo | 91,589 | 0 | 304,549,364 | 1, 2, 3 | SM, T | Firenze 76, Perugia 77, Pesaro 139, Ancona 192, Rome 215. |
| Tuscany | Grosseto | Albinia | 2,926 | 0 | 6,994,138 | 1, 3 | SM, T | Civitavecchia 77, Rome 146, Perugia 160, Firenze 179. |
| Tuscany | Grosseto | Grosseto | 82,143 | 1 | 141,152,596 | 1, 3 | M, T | Civitavecchia 109, Livorno 135, Firenze 147, Perugia 174, Rome 178. |
| Tuscany | Pisa | Saline di Volterra | 1,143 | 0 | 2,910,360 | 1, 2 | SM | Siena 65, Pisa 86, Firenze 91, Bologna 189, Genoa 236, Rome 294. |
| Tuscany | Siena | Asciano di Siena | 7,224 | 1 | 14,206,253 | 1, 3 | P, T | Siena 31, Arezzo 47, Perugia 81, Firenze 119, Livorno 157, Rome 207. |
| Demographic pattern: -2: significant decline; -1: slight decline; 0: stable; 1: slight rise; 2: significant rise. Economic activity: 1: primary sector; 2: secondary sector; 3: tertiary sector. Land communication: P: poor; SM: super main road; M: motorway; T: railway. | | | | | | | | |