



Raw Materials—Linseed Oil #15



The plains of eastern Montana



Flowering Flax



Entrance to the linseed oil facility



Finished oil paint at Gamblin factory



Artist Grade Oil Paint

Focusing on "pigments" is easy because we see them in the world around us - white, black and red pigments are found everywhere and colored earth pigments were trade commodities along the Silk Road. However, paint is a mixture of pigments and binder. The origin of the most common paint binder used before WWII is pre-historic. We know the Nubians made Linseed oil varnishes to seal their boats and the Egyptians wove linen into cloth. Although we do not have written records, processing flax plants must have been an important industry. And, in that ancient industry, we find the origins of artists' paint making.



By the 14th century, painters were also adding linseed oil to their egg tempera formulae to increase the transparency of their binder. Because their primary painting media —mosaics, fresco and tempera, were all opaque, painters prized Linseed oil because its transparency and luminosity lit up their paintings and created depth. LO traps light deep inside paint layers. As the light struggles to escape, it causes paintings to glow. Oil replaced egg completely as the binder by the end of the 15th century.

Now, after more than 500 years, we can see for ourselves Linseed oil is the best binder for permanent paintings. I use Linseed oil (LO) as the binder for all but a few Gamblin Artists Colors.

Flax plants thrive during long hot days and cold nights on the plains of eastern Montana and

up through central Canada. When cultivated for seed, yellow and white flowering flax is preferred. The whiter the flower is, the paler the oil.

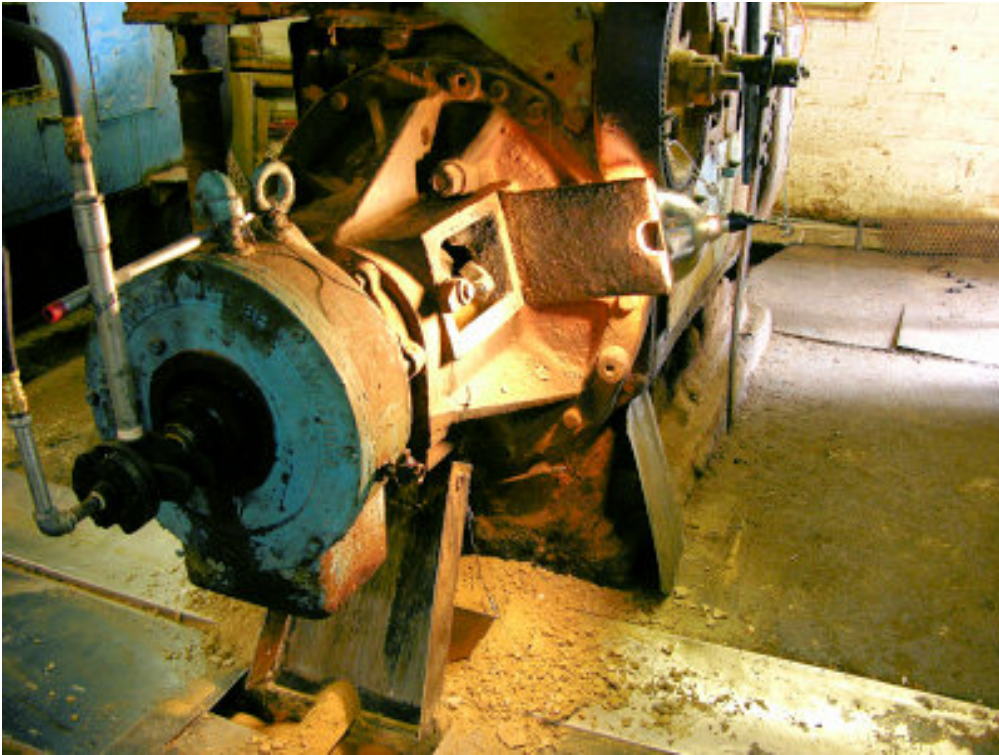
Gamblin Artists Colors Co. is fortunate to have an excellent US linseed oil supplier, a small producer, who delivers high quality oil of excellent color. High quality, mature flax seeds contain about 40% oil by volume.



After harvest, flax seeds are stored in silos.



Here a worker checks the grinder, bringing the LO to temperature.



This is a close-up of an auger (screw) style seed grinder. The grinder is heated to increase expression of oil.



After crushing, husks drop down and the oil with its mucilage and sediment moves toward the holding and heating tanks. Contemporary processed LO is purer than oils of the past because it is not contaminated by weed seeds. Weed seed produces a non drying oil.

