* **EXPERIMENTAL WORK:**

**Phytochemical screening**

Phytochemical / in vitro anti inflammatory activities Phytochemical tests (flavonoid, total phenol, saponin and tannins) were performed in powder samples by taking standard component procedures as indicated by Edeoga, as well as Trease and Evans [24, 25]  
**1)Test for flavonoid**To determine the presence of flavonoids, three methods were used [24, 26]: In the aqueous phase filtrate of each leaf, 5 mL of distilled ammonia solution was added and then infused with H2SO4. The discovery of yellow color in each sample indicates the presence of flavonoids. This yellow color disappears when standing. A few drops of 1% aluminum solution were added to each filtered part, and a yellowish tinge also indicated the presence of flavonoid. Half of the powdered leaf of each sample was diluted with 10 mL of ethyl acetate over steam bath for 3 minutes. The mixture was filtered and 4 mL of filtrate was stirred with 1 mL of diluted ammonia solution. The discovery of the yellow color also indicates a positive test for flavonoids. The total flavonoid content was measured by repeated extraction of 10 g of plant sample at room temperature and 100 ml of 80% aqueous methanol. The solution was assembled and filtered through Whatman filter paper No. 42 (125 mm). After filtering, it evaporates to dry on a water bath using a crucible until a constant weight is recorded.  
**2) Test for complete phenol:**  
Folin-Ciocalteau reagent was used to estimate the total phenolic content of M. oleifera as shown by Siddhuraju and Becker [27]. Approximately 20 μg of powdered leaf sample was taken separately and placed in a test tube and made up to 1 mL of distilled water. In this case, Folins-phenol reagent diluted in a ratio of 1: 1 with water and 20% of 2.5 mL of sodium carbonate Na2CO3 was added. The mixture is thoroughly mixed with sufficient stirring and placed in the dark to allow for color enhancement for 40 minutes. After incubation, the absorption of the mixture is measured at 725 nm. To obtain the full phenolic content, a measuring curve using a linear gallic acid obtained within 10-50 μg / mL was used. Therefore, the total phenolic content of the samples was expressed as mg GAE / g extract (mg gallic acid equivalent).  
**3)Test.forsaponin:** About 2 g of powdered leaf sample was boiled in 20 ml of distilled water in a water bath and filtered. Strong solid foam after stirring 10 mL of filtrate mixed with 5 mL of distilled water mixed with 3 drops of olive oil. This was stirred vigorously and, after that, tested the composition of the emulsion. The total saponin content was measured using the Obadoni and Ochuko method [28]. At 20 g of each sample, 100 cm3 of 20% aqueous ethanol is added to the indicated flask. This was then heated to about 55 ° C for 4 hours over a hot water bath with continuous stirring. After this, the mixture is filtered and the process is repeated to rest. The solutions were then concentrated and diluted to 40 mL with approximately 90 ° Cover bath water. Then, 20 mL of diethyl ether was added to the concentration of 250 mL separator and stirred vigorously. A wet layer was obtained and the cleaning process was repeated. In this case, 60 mL of nbutanol was added and the combined n-butanol solution was washed twice with 10 mL of 5% aqueous sodium chloride while the remaining solution was heated in a water bath. Samples are made to dry in the oven until a constant weight is obtained after evaporation. The saponin content was then expressed as a sample percentage.

**4) Check out the tannins:**  
0.5 g of dried powdered leaf sample was placed in 20 ml of water in a test tube and then boiled and filtered. A hint of brown or blue-black color after adding a few drops of 0.1% ferric chloride indicates the presence of tannins. The tannin content of M. oleifera is measured by measuring 500 mg of the sample in a 50-mL plastic bottle. In this case, 50 mL of distilled water was added and stirred with a mechanical shaker for 1 hour. This is then filtered directly into a 50-ml volumetric flask and filtered water. Then 5 ml from the filtrate was mixed with 2 ml of 0.1 M FeCl3 to 0.I N HCl and 0.008 M of potassium ferrocyanide in a test tube. Within 10 minutes, gravity at 120 nm is measured.