# ALEURONE AND BIALEURONE, THE MOST RECENT DISCOVERIES APPLIED TO COSMETOLOGY*

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The aleurone extract obtained by a biological process from wheat yielded the following analysis:

| | | | |
|---|---|---|---|
| Moisture | 10.15% | Fats | 27.25% |
| Ash | 15.75% | Cellulose | Traces |
| Amine-Nitrogen | 0.471% | Carbohydrates | 22.00% |
| Total Nitrogen | 3.88% | | |

The easy fermentation of the original extract and variations in the ash residue led to the difficult problem of extracting the active components. Numerous experiments showed that the water soluble distillate possessed a high biological activity. For this reason we concentrated our experiments mainly on the distilled portions. Successive distillations finally yielded a highly concentrated substance which we called Bialeurone.

The simple water soluble distillate of Aleurone (called Aleuronin by Perini), and the concentrated distillate Bialeurone were further analyzed by Perini, Muntoni and others. Some results were:

They both have a spectrum which is characterized by maxima at 215 and 275 Å. under ultraviolet light, and the photometric examination served to estimate the concentration of the active component in the distillate. Aleurone decreases the Fehling reaction and gives a clear reaction with 2,4-dinitrophenylhydrazine, indicating an aldehyde or ketone character.

The percentage in grams in one liter of Bialeurone is the following:

| | | | |
|---|---|---|---|
| Cystine | 2.43 | Glycine | 2.85 |
| Lysine | 4.42 | Leucine | 1.86 |
| Arginine | 5.01 | Tyrosine | 8.55 |
| Hystidine | 2.35 | Tryptophane | 1.05 |
| Glutamic Acid | 57.50 | Proline | 4.28 |
| Glutamine | 9.69 | | |

The vitamin content per gram in Bialeurone is the following:

* Résumé of paper presented at the August 2, 1957, Meeting, Geneva, Switzerland.