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graph TD
    Input(( )) --> mean_precip(mean_precip)
    Input --> mean_airtemp(mean_airtemp)
    Input --> SYNMAP_LAND_COVER[SYNMAP_LAND_COVER]
    
    mean_precip --> fetch_precip[fetch_monthly_mean_precipitation_data]
    fetch_precip --> Rain_Matrix(Rain_Matrix)
    
    mean_airtemp --> fetch_airtemp[fetch_monthly_mean_air_temperature_data]
    fetch_airtemp --> Tair_Matrix(Tair_Matrix)
    
    SYNMAP_LAND_COVER --> SYNMAP_land_cover_map_data(SYNMAP_land_cover_map_data)
    SYNMAP_land_cover_map_data --> fetch_synmap[fetch_SYNMAP_land_cover_map_variable]
    
    Rain_Matrix --> examine_pixels[examine_pixels_for_grass]
    Tair_Matrix --> examine_pixels
    
    examine_pixels --> C4_Data(C4_Data)
    
    fetch_synmap --> lon_variable(lon_variable)
    fetch_synmap --> lat_variable(lat_variable)
    fetch_synmap --> lon_bnds_variable(lon_bnds_variable)
    fetch_synmap --> lat_bnds_variable(lat_bnds_variable)
    
    C4_Data --> generate_netcdf[generate_netcdf_file_for_C4_fraction]
    lon_variable --> generate_netcdf
    lat_variable --> generate_netcdf
    lon_bnds_variable --> generate_netcdf
    lat_bnds_variable --> generate_netcdf
    
    generate_netcdf --> C4_fraction_data(C4_fraction_data)
    C4_fraction_data --> Output(( ))

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