Australia aims for self-sufficiency

(Former JAOCS assistant news editor Sara Arndt is in the midst of a round-the-world tour and is, from time to time, filing reports on the fats and oils industries in nations she visits. This report, prepared in mid-November, is from Australia. Her report from New Zealand appeared in the January 1982 JAOCS.)

The current trend in Australia's oilseed industry could lead to an eventual self-sufficiency in domestic vegetable oils, according to Bryce Bell, former chief executive officer of the only Australian-owned oilseed crushing firm, Meggit Ltd., and present director of Ocsis Advisory Services in Sydney.

Although Australia would need to produce at least another 80,000 tons of oil per year to meet domestic demand, Bell says the country's vast areas of good oilseed-growing land and increased capacity and storage facilities in the processing industry indicate a steady increase in productivity.

Ocsis Advisory Services, established by Bell earlier this year, acts as a central organization to coordinate and to promote Australian oilseeds which, as individual industries, lack the abilities and strengths of the United States' American Soybean Association or the Canola Council of Canada. Mr. Bell edits and produces the annual catalogue, *AOF Oilseeds*, for the Australian Oilseeds Federation. He also writes a monthly pamphlet, *Sensus*, as a source of information, including current data, forecasts and trends, for those industries involved in the trading, processing or marketing of vegetable oilseeds, coarse grains and animal protein commodities and products.

From an agronomic point of view, oilseeds are a "young crop" in Australia, and were, for several years, hindered by restrictive laws on margarine production (to protect the butter industry), which limited the domestic market for animal and vegetable oils. In the late 1960s, a major Australian margarine manufacturer began a widely publicized campaign against the laws limiting margarine marketing. The campaign featured a typical Australian housewife, Mrs. Jones, who wanted to know why she could not buy a good Australian-made margarine. These efforts led to formation of the Federation of Australian Margarine Manufacturers Association and to the abolition, by the Labour government in 1974, of margarine quotas in several states. Although manufacturing quotas are still enforced in Queensland and Victoria, Bell points out that there are no restrictions on interstate shipments from other states that have no limitations.

The lifting of these restrictions and the extensive promotion of polyunsaturated margarine from a "health" perspective (Bell says the Australian public is much more aware of potential benefits of polyunsaturated fats than the American or European public) combined to increase sales. The production of table margarine in Australia increased by almost 500% between 1970 and 1980, from 16,000 tons to 94,000 tons. During the same period, production of processed vegetable oils increased by almost 200% to more than 120,000 tons a year.

The use of bottled vegetable oils in Australia, Bell notes, increased with the growth of ethnic populations. Greeks and Italians make up about 10 to 15% of Australia's population, and vegetable oil manufacturers tend to aim at these very intensive users of cooking oil, even introducing the fanciful European-style cans and packaging labels.

Australia's major crops are sunflower, soybean and cottonseed, with secondary crops of rapeseed and safflower. Sunflower is grown in the southeastern state of New South Wales and the eastern state of Queensland, the country's most favorable sunflower land with an almost tropical clime. The crop is grown under irrigation in South Australia and the southern state of Victoria. Sunflower is sown from September to March and harvested from December to May.

Soybean is also grown in New South Wales and Queensland, being sown from November to January and harvested from April to June. Rapeseed grows better in the cooler climate of South Australia, Victoria, southern New South Wales and Western Australia. It is sown from May to September and harvested December to February.

Cottonseed is commercially produced in New South Wales and Queensland, along with safflower, of which Australia is the world's sixth largest producer.

Following two years of rapid expansion in area sown to oilseeds (to a record level in 1978-79), the industry suffered a setback from a slight decrease in area sown combined with severe drought conditions in 1980-81. Total oilseeds production dipped to 429,334 tons in 1980-81, from 456,323 tons in 1979-80. Sunflower production totaled 159,342 tons this season, from 186,203 tons in 1979-80, and soybeans totaled 86,058 tons this year, from 95,760 tons the previous year. Rapeseed production dropped to 24,057 tons in 1980/81 from 39,097 tons in 1979-80, as did cottonseed to 84,809 tons in 1980/81 from 133,084 tons in 1979/80. Safflower dropped from 28,611 tons in 1979/80 to 9,702 tons for 1980/81.

With this sharp decline in supplies, higher levels of imports are expected in the current marketing year to supplement domestic production. In 1979/80, oilseed exports from Australia reached 103,973 tons, compared to 90,771

in 1978/79, while vegetable oil exports dropped to 1,380 tons in 1979/80 from 4,195 tons in 1978/79. Last year Australia imported 13,366 tons of oilseeds and 83,674 tons of oils, compared to 369 tons of oilseeds and 82,483 tons of oil in 1978/79.

Soybean and cottonseed are grown in Australia only under irrigation. Rapeseed, which is cultivated in the cooler south, has only a three-month harvesting period. According to Bell, Australia must concentrate on sunflower, with its potentially long growing period and harvesting time of January to August, to supply its demands for vegetable oil. Although the country would need to produce another 75,000 tons of sun oil, Bell believes that all the soybean oil used (30,000 tons of which is imported) could be supplanted by sun oil.

The varieties of sunflower now available in Australia (there are more than 20 hybrids) have a range of maturities and are capable of high seed and oil yields (generally over 45% oil) with sowing times spread from August to early March. Sunflower is now the major dry season crop in Western Australia and has become an important income earner for farmers, especially in Queensland, which will host the 1982 International Sunflower Conference at Surfer's Paradise. Sunflower is used as a cooking/salad oil and—when it contains the regulatory 62% linoleic acid—in margarines.

The use of rapeseed oil has been restricted by the domestic availability of seed for crushing and the ban on the use of rapeseed oil in margarine. Australia is now producing low-erucic-acid varieties (less than 5%) and the crop has received a shot in the arm with the recent approval of the use of rapeseed oil in margarines in New South Wales. Manufacturers now find that insufficient rapeseed is grown in Australia to satisfy the potential demand for oil, and it is likely that rapeseed oil will be imported in the future.

Following a recent visit to North America, which included a visit to the Canola Council and Canola Crushers of Canada, Bell comments that, in the 1980 crop year, Canada produced almost four million tons of oilseeds, while Australia produced only 472,000 tons. He makes the point that the Canadian industry has developed because growers, scientists, government, crushers and users wanted the industry to do so and that the Australians haven't yet made the effort to coordinate their interests and develop the enormous potential for oilseeds in Australia. In an October 1981 article in *Sensus*, Bell writes that Canadian progress with canola "was achieved through support and cooperation; through a desire to fill a need; through a vision of great substance and magnitude which brought benefits to both primary and secondary industry interests."

"By comparison, Australia's efforts over the same period pale into the dust," but "the same development, pro-rata can be done here—not necessarily with rapeseed—it could be sunflower, but it could be achieved with a cooperative approach between grower-crusher-user, as well as the supporting functions."

Despite favorable demand and increases in crushing capacity, Australia's growth as an oilseed producer has been restricted by the lack of enthusiasm on the part of growers to plant oilseeds. Bell attributes this attitude to Australia's "mono-culture" as a wheat-growing country for many years, creating a pattern that is slow to change. There are still many growers in Australia who regard oilseeds as potentially "risky" crops, and who prefer the system of smaller, regular payments which wheat provides to a lump sum from once-a-year oilseed "cash" crops. In addition, the unreliable weather pattern in Australia means that growers will plant the crop upon which they can rely, as far as yield is concerned.

J.D. Ranken, executive director of the Oilseeds Marketing Board for New South Wales, believes that Australian farmers should be encouraged to consider the merit of oilseeds in crop rotation (it has been established that cereal crops grown after oilseeds show increased yields) rather than on a crop-by-crop comparison. He stresses the favorable consumer demand for oil which should provide an incentive for farmers, and points out that Australia's leading margarine brand is now the largest single grocery line in Australia in both volume and dollar sales.

However, Australia's oilseed industry faces other problems. Internal freight costs are so high that in many cases, oilseeds which are grown in Queensland, 1,200 to 1,800 miles from the margarine manufacturers in New South Wales, are exported and New South Wales, in turn, must import oils or oilseeds to meet its demands. Some believe the margarine manufacturers impose unnecessarily stringent restrictions on oil quality—requiring a 62% linoleic content in sunflower oil for use in margarines—which cannot be met by Australia's summer harvest of sunflower, necessitation imports of 4,000 tons of U.S. sunflower oil of suitable quality. In a recent paper given at the National Agricultural Outlook Conference, Ranken asked the manufacturers, "please do not strangle the child just when it is starting to grow."

Sunflower conference: sun oil as fuel

Surfer's Paradise, the Miami Beach of Australia's East Coast, will be the site of the Tenth International Sunflower Conference during March 1982. Owen Duncan, president of the Australian Sunflower Association, is expecting an attendance of about 600, more than half of whom will be from overseas. At present (mid-November), there are more Americans than Australians registered for the meeting. The conference will cover topics such as problems common to the Australian and the U.S. sunflower industries, including damage by insects, and a search for satisfactory control measures to combat damage by birds, the marketing of sunflower as a "quality" oil, and the use of sun oil as diesel fuel.

Australia's CSIRO has been engaged in a major five-year program, Project Crop Fuel, involving research in collaboration with universities, state departments of agriculture, industry and farmers. Researchers in Australia, as well as in South Africa and the U.S., have encountered similar problems with substitution of sun oil for diesel fuel, namely higher viscosity, the tendency to coke up diesel injectors, contamination of lubricating oil, and higher fuel consumption. Nevertheless, Australians are enthusiastic about the potential of oilseed fuels, which have a low sulfur content, equal the power output of diesel fuels, and are safer to handle. Alan Rector, chief executive officer of Meggitt Ltd., oilseed processor, believes that thousands of trucks, tractors, cars and boats may one day be running on oil extracted from Australian-grown sunflowers in order to conserve petrol products. In Australia's *Sunflower* magazine of August 1981, he was quoted as saying, "Oilseeds could supply enough fuel to reduce Australia's distillate consumption by 20% within five years" and that "if sunflower oil takes off as a fuel, we can expect a dramatic change in Australia's agricultural economy." □

Fats and oils nation-by-nation

The following reports are based on USDA publications and reports by USDA agricultural counselors and attaches. Most of the information was compiled between mid-October and early November.

SOVIET UNION

The Soviet Union had a relatively poor oilseeds harvest for 1981, and initial USDA forecasts for 1982 don't show much prospect of improvement.

USDA observers estimate 1981 oilseed production at 10.5 million metric tons, about equal to 1980, and expect about the same for 1982. Edible vegetable oil production for 1981 was about 2.51 million MT, continuing a three-year downward trend and about 25% below 1975's 3.33 million MT production.

Oilseed imports, which may have reached 1.4 million MT in 1981, could total more than 2.0 million in 1982.

Official Soviet statistics report per capita consumption of vegetable oils has increased steadily from 7.7 kg in 1976 to 8.6 kg in 1980. Margarine production, estimated at 1.04 million MT in 1976, has risen steadily and was estimated at 1.3 million MT for 1980.

EAST GERMANY

Rapeseed production for 1982 is expected to be about 320,000 metric tons, about 30% more than the 250,000 MT of 1981, when the crop was planted late and therefore did not develop on the optimum schedule.

Total seeded area for the 1982 crop was 128,000 hectares, up 3% from the previous year.

Up until 1975, yields were about 2.5 tons per hectare, or about the world average. More recently, yields have been closer to 2.0 tons per hectare.

Field trials of a low-erucic-acid rapeseed will begin in 1982. Efforts also are under way to develop a variety with 45% oil content.

East Germany imports about 70% of the fats and oils needed for its food industry. Consumption of vegetable oils has declined in recent years and use of animal fat has increased.

MALAYSIA

Crude palm oil production for 1982 is forecast at 3 million metric tons, up from 2.75 million MT estimated for 1981 and about 2.6 million MT in 1980.

The increase is attributable to increased acreage and to a return to more normal yield of 3.5 MT per hectare.

About 2.5 million MT of palm oil is forecast for export in 1982, with 2.3 million MT of that as refined palm oil. Palm kernel oil exports are expected to be about 260,000 MT of the 270,000 MT production during 1982.

Yields have not shown major increases during recent years because more recent plantings have been on poorer land than previous plantings, and they are in areas with less favorable rainfall patterns.

TURKEY

Total 1981/82 oilseed production in Turkey is estimated at 1,568,000 tons, about the same as 1980/81, according to USDA observers.

The production includes about 780,000 tons of cottonseed and 575,000 tons of sunflower seed.

Official statistics are not available on edible oil consumption, but one estimate says Turkey probably needs to import about 70,000 MT of oil to meet demand for 1981/82 and that 100,000 MT should be more than enough. Estimated supplies of domestic oil for 1981/82 are: cottonseed, 108,000 MT; sunflower, 285,000 MT; peanut, 4,000; rapeseed, 27,000; and poppy seed, 5,000. About 100,000 MT of soybean oil is expected to be imported.

BRAZIL

Initial estimates for Brazil's 1982 soybean crop, made shortly after the crop was planted, anticipated a total harvest of somewhere over 15 million metric tons, with USDA estimates at 15.2 million MT. That would be about 300,000 MT below the 1981 crop.

Other estimates for 1982 (with 1981 totals in parentheses): peanuts, 350,000 MT (310,000 MT); castor, 310,000 (280,000); and cottonseed, 1,057,000 (1,100,000).

While exports of soy meal and crude soy oil are expected to decline because of the smaller crop, USDA observers note that refined oil exports during 1980/81 totaled about 200,000 tons for the 1981/82 season, compared to virtually nothing in 1979/80. While crude oil exports are controlled under a quota system, refined oil exports are not, noted USDA.

CHILE

Chilean oilseed production for 1982 is expected to be about the same as for 1981, or approximately 34,000 tons, but with less rapeseed and more sunflower than in 1980.

Rapeseed acreage decreases will limit production to about 20,000 metric tons for 1982 compared to 28,000 during 1981, while sunflower acreage increases are expected to boost production to 14,000 MT for 1982, up from 6,000 tons.

Edible oil imports could reach a record 90,000 metric tons during 1982, including 85,000 tons of soybean oil from Brazil, Argentina and the U.S. Fish meal exports during 1982 may reach 500,000 tons, surpassing 1981's 400,000 tons and 1980's 484,000 tons. □